VOLUME XXX NUMBER TWO

THE NATIONAL GEOGRAPHIC MAGAZINE

AUGUST, 1916

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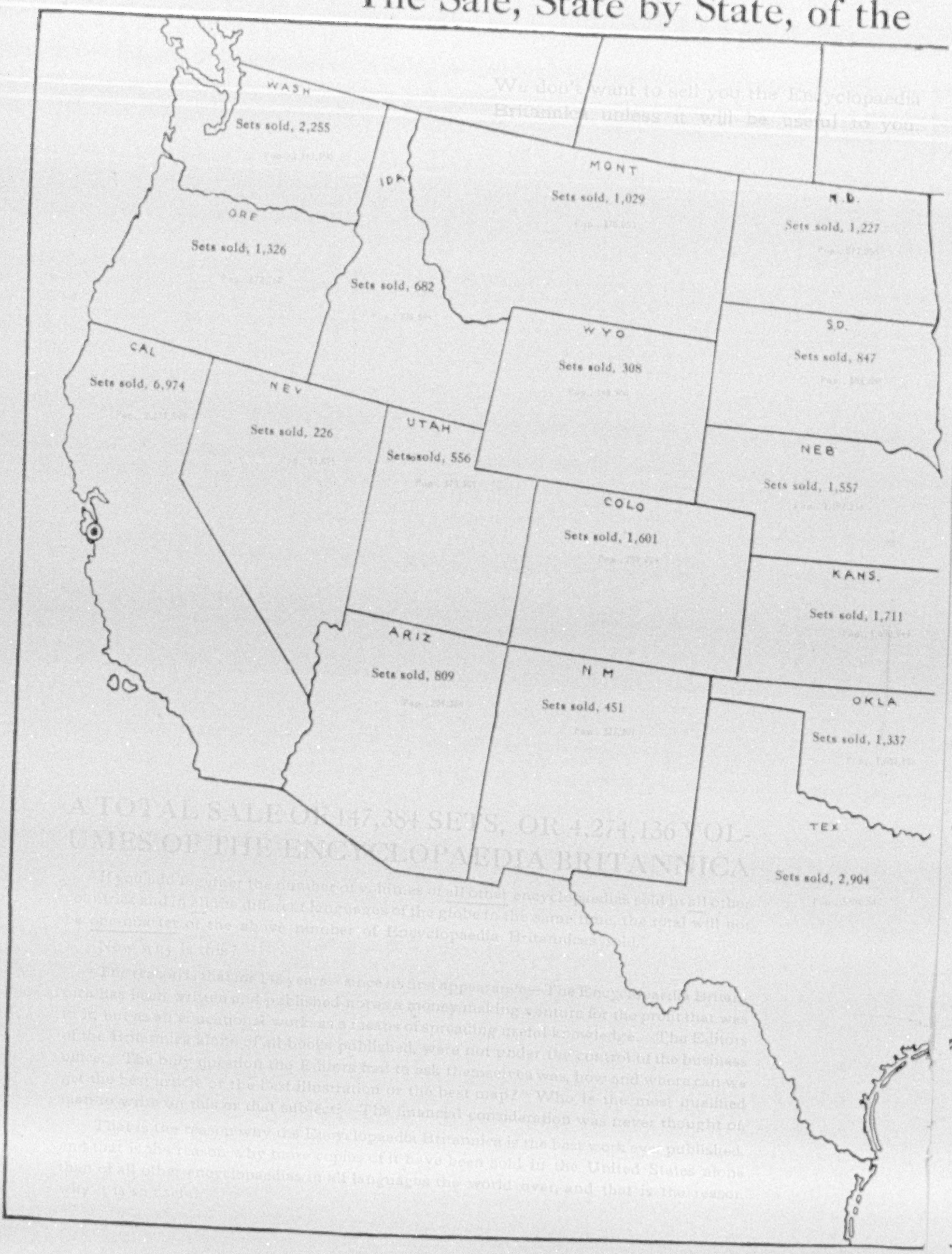

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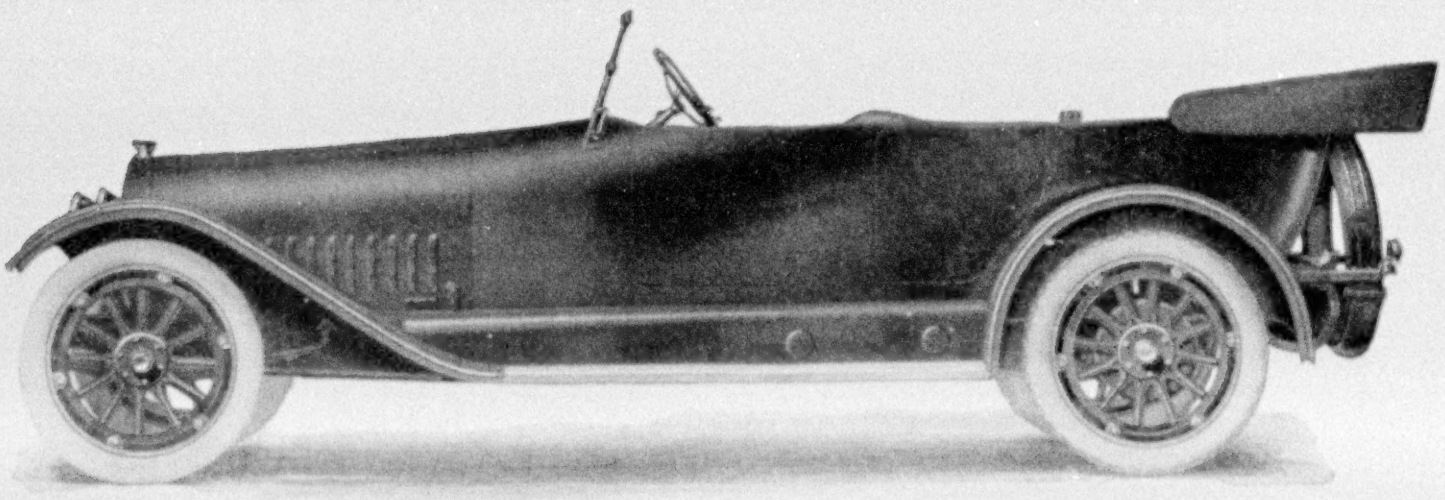

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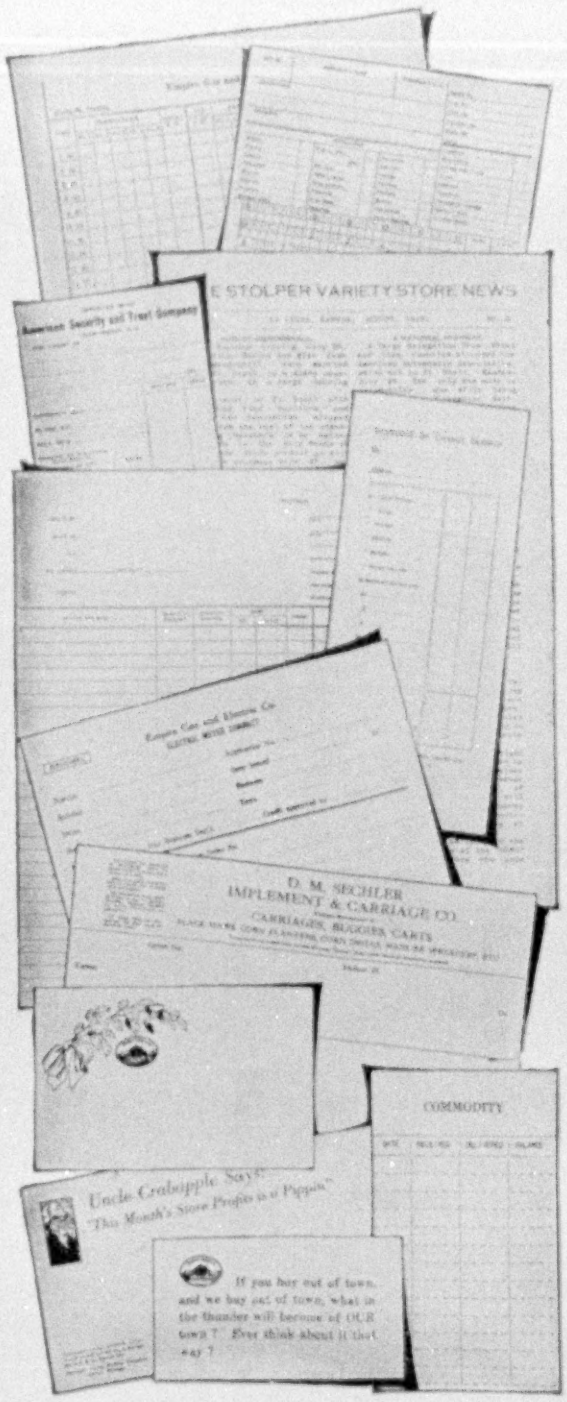
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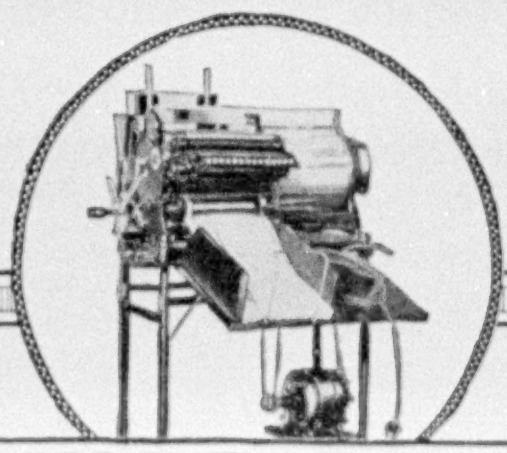

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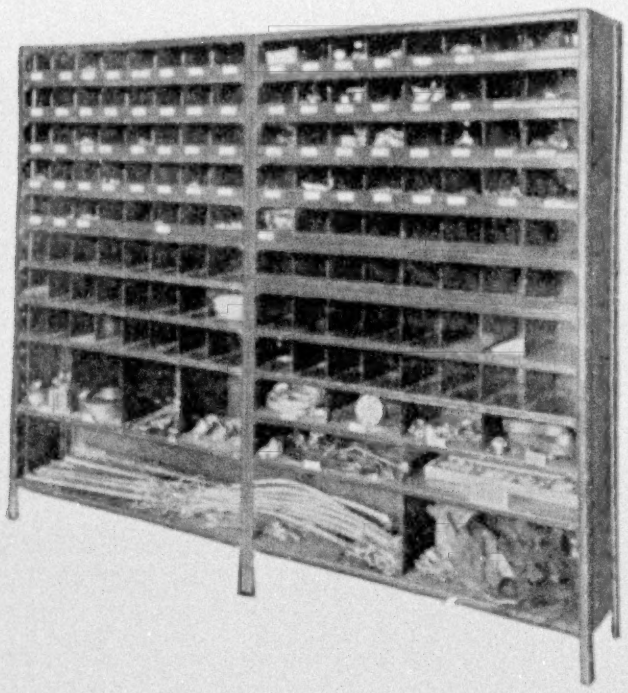

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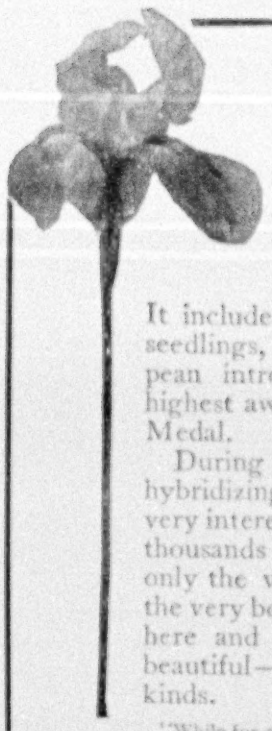

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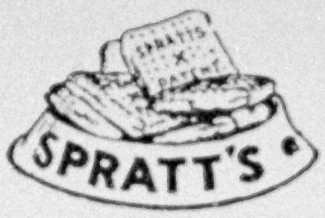

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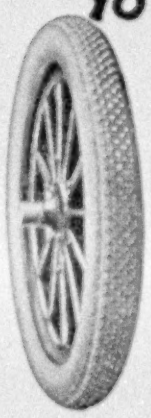

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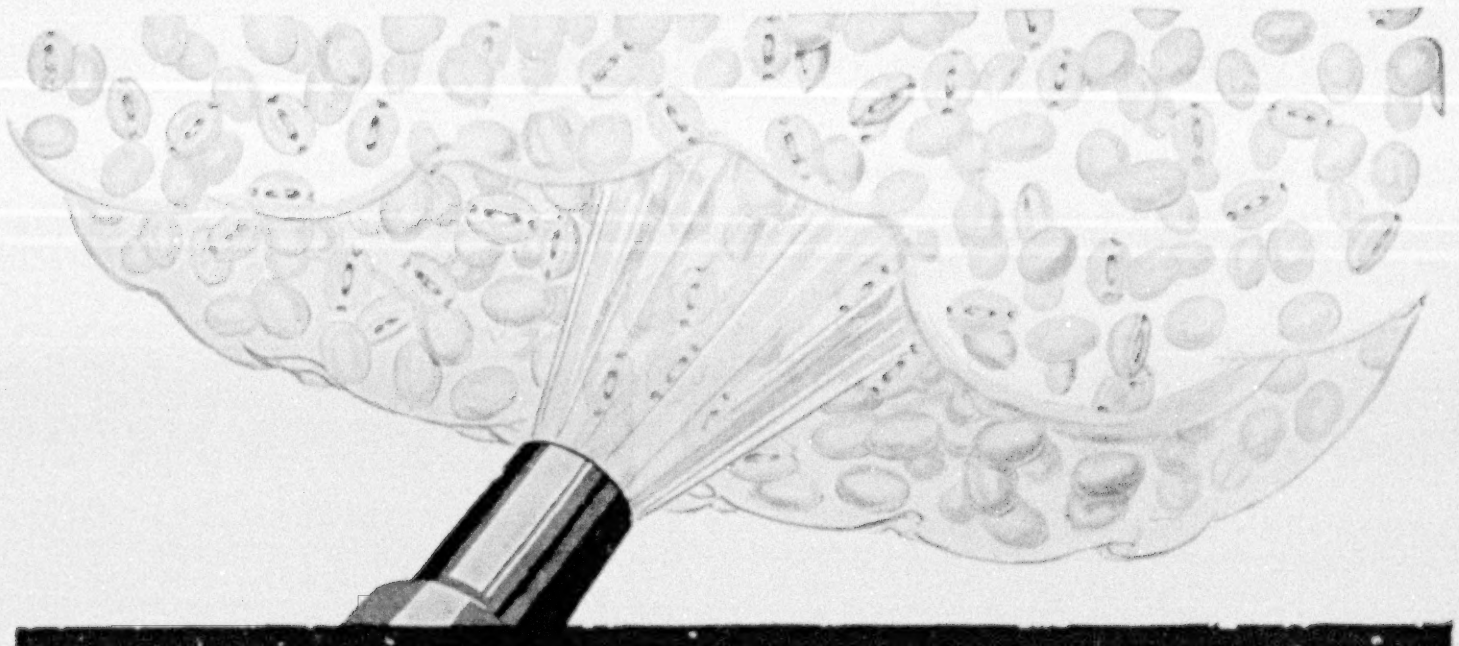

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And these grains are shot out—puffed to eight times size—in the form of these toasted bubbles, flaky, thin, and crisp.

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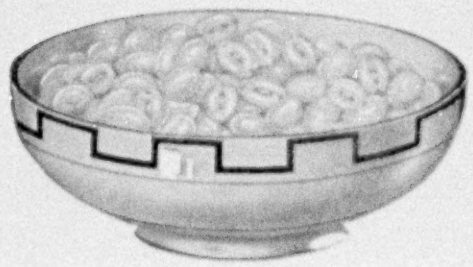
Float them in your bowls of milk.

Garnish your ice cream with them.



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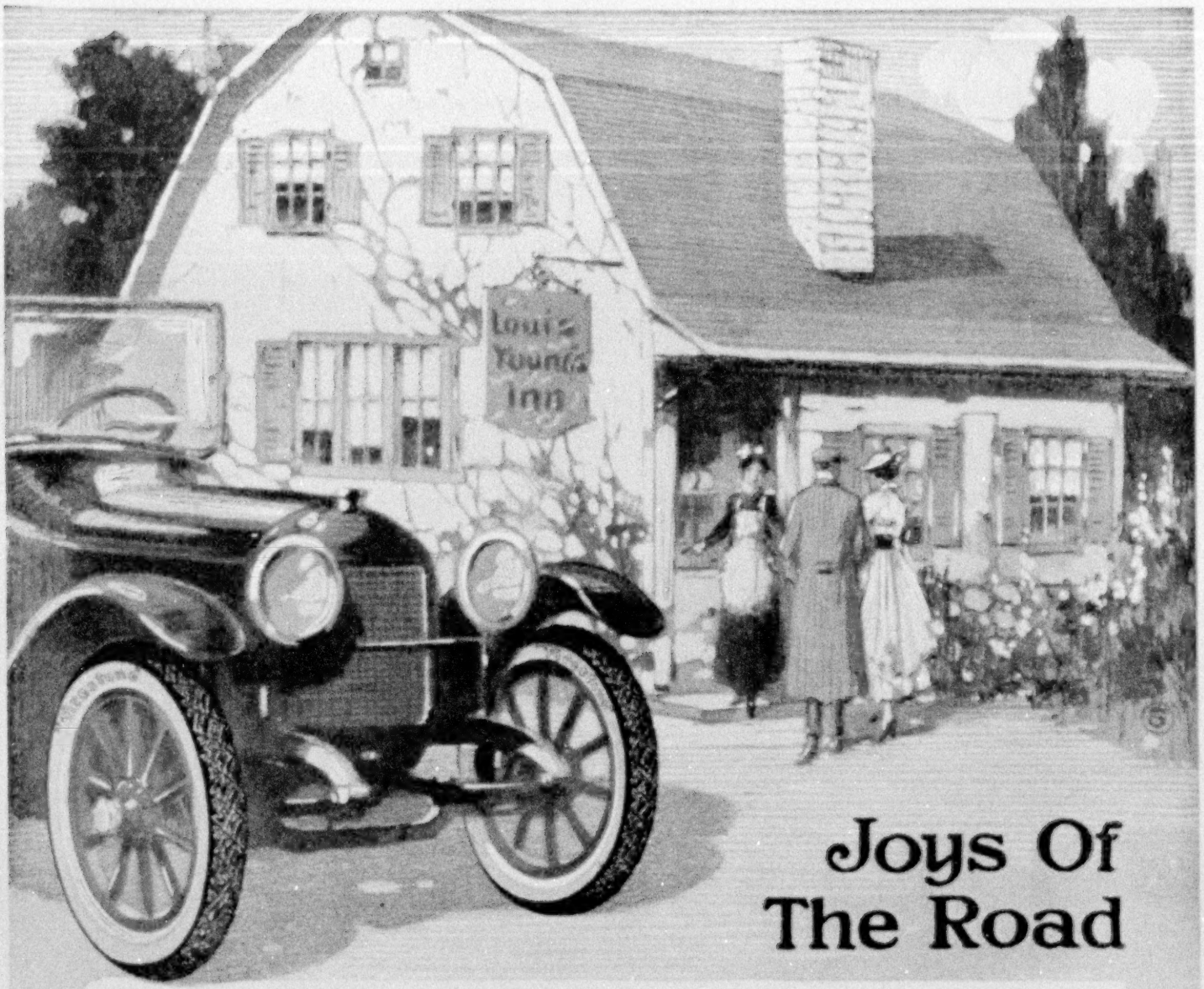
SOLE MAKERS

(1341)



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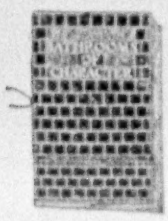

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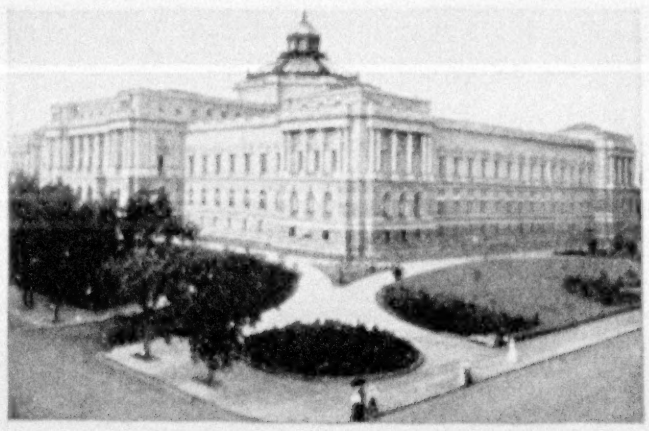

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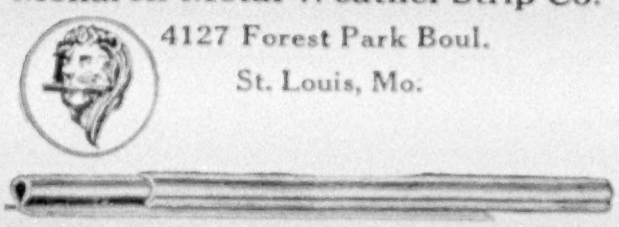

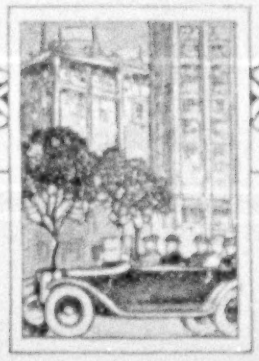

A Circle That Never Stops Growing

It is astonishing how quickly people get to know about a car, and especially about the men who build it

People are not buying Dodge Brothers Motor Car simply because they want a car of some sort or any sort.

They are buying it because they want the precise and particular kind of a car which Dodge Brothers build.

All over the country they seem to have a shrewd and accurate idea of exactly the kind of manufacturers Dodge Brothers are.

They seem to know that Dodge Brothers idea, from the very first, was that if they built the car right—nothing else mattered much.

People generally know all about the car—or nearly all—before they call on a Dodge Brothers dealer.

They know it either from their own experience or from what they have seen or been told of other people's experience.

They pick out the very points for which it is noted everywhere—points which have not been emphasized especially in advertising.

They know *why* they want the car—and they are more eager for it today all over the country than they have been at any other period in its history.

The production has always been too small to come anywhere near satisfying the demand.

It is at this moment, and it probably will be for years to come, no matter how much it may be increased.

The explanation is ridiculously simple.

The car has never bred anything but good will.

Every time one of these cars goes into a home it becomes an intimate part of the family life of that home.

It gets nothing but good words and good will.

The result is that that particular home becomes a little circle of good will revolving around Dodge Brothers Motor Car.

The circle spreads out finally and takes in a near-by neighbor.

That neighbor's home, in turn, begins to radiate good will toward Dodge Brothers and their car, and the circle keeps on growing.

In that way it has grown wider and wider, till it takes in the entire country.

There is always a desire for the car waiting to be satisfied, as fast as the dealer gets in a supply.

That's why sales of more than sixty-three million dollars in a year and a half have fallen far short of satisfying the demand.

The car has qualities peculiar to itself.

People have found this out in their own way.

It has made good with them, and they have given it their good will.

That is why the good-will circle goes on growing greater and greater.

Dodge Brothers know this.

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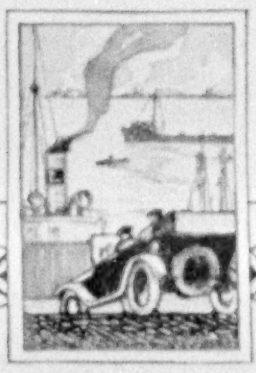

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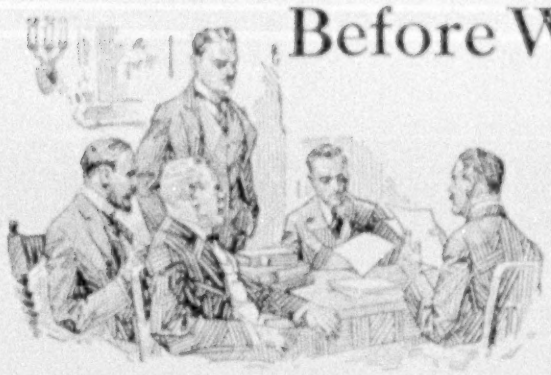

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VOL. XXX, NO. 2 WASHINGTON AUGUST, 1916

THE NATIONAL GEOGRAPHIC MAGAZINE

LITTLE-KNOWN SARDINIA

BY HELEN DUNSTAN WRIGHT

THOSE who have taken the Mediterranean route have at least had a glimpse of Sardinia from their steamer a day out from Naples. The island is in sight for some hours, and, if the steamer passes sufficiently close, a bold rocky coast can be seen on which Roman outlook towers remain similar to those scattered along the south shores of Spain. The tourist seldom includes a trip to Sardinia in his travels, as neither of his advisers, Thomas Cook nor Baedeker, recommends it to him. It, however, is one of the few foreign fields that has not been overrun and overfed by the tourist, and in many of the villages a traveler is still regarded as a guest and not as prey to be pounced upon.

Some day, when tourists are tired of taking the tours laid out for them by the guide-books, perhaps they will break away from the continent and set sail for Sardinia, especially if they are not traveling just to enjoy hotel comforts. One can rent a good automobile at Cagliari, and a week spent touring around the island would probably leave the pleasantest of recollections and an experience long to be remembered.

Sardinia can be reached by an eight hours' night voyage from Civitavecchia, the port of Rome, to the north end of the island. The crossing on the mail steamer is quite comfortable, but the knowledge that one must get up at five the next morning is rather appalling. The beauty of the sunrise over the sheer cliffs and craggy isolated rocks of Golfo degli Aranci compensates, however, for this inconvenience and for the cup of bitter black coffee which comprises the breakfast.

As soon as one lands, a refreshing fragrance in the air is noticed—a perfume characteristic of Sardinia—not due, certainly, to orange trees, as is suggested by the name of the port, there being none in this district, but to the many wild herbs and shrubs all over the island.

The first couple of hours' journey down the island is over a rough, rolling country made up of granite and resembling parts of Arizona or Montana. This apparent waste land is used for pasturing goats, which feed on the shrubs. Here, as over most of the island, one finds the white flowering cystus, bright yellow ginestra, rosemary, a mass of blue when in blossom, and pink heather; also arbutus with bright yellow and red berries, thyme, juniper, and other shrubs.

THE SWITZERLAND OF SARDINIA

Excepting the eucalyptus and pine planted near the stations, there is a noticeable lack of trees along the railway routes. Among the mountains, however, which occupy the eastern half of the island and occur to some extent along the western coast, there are important forests of oak, ilex, cork, and wild olive; also areas reforested with pine and chestnut trees. In the mountainous areas of the island are many fertile valleys.

XUM

Photograph by C. W. Wright

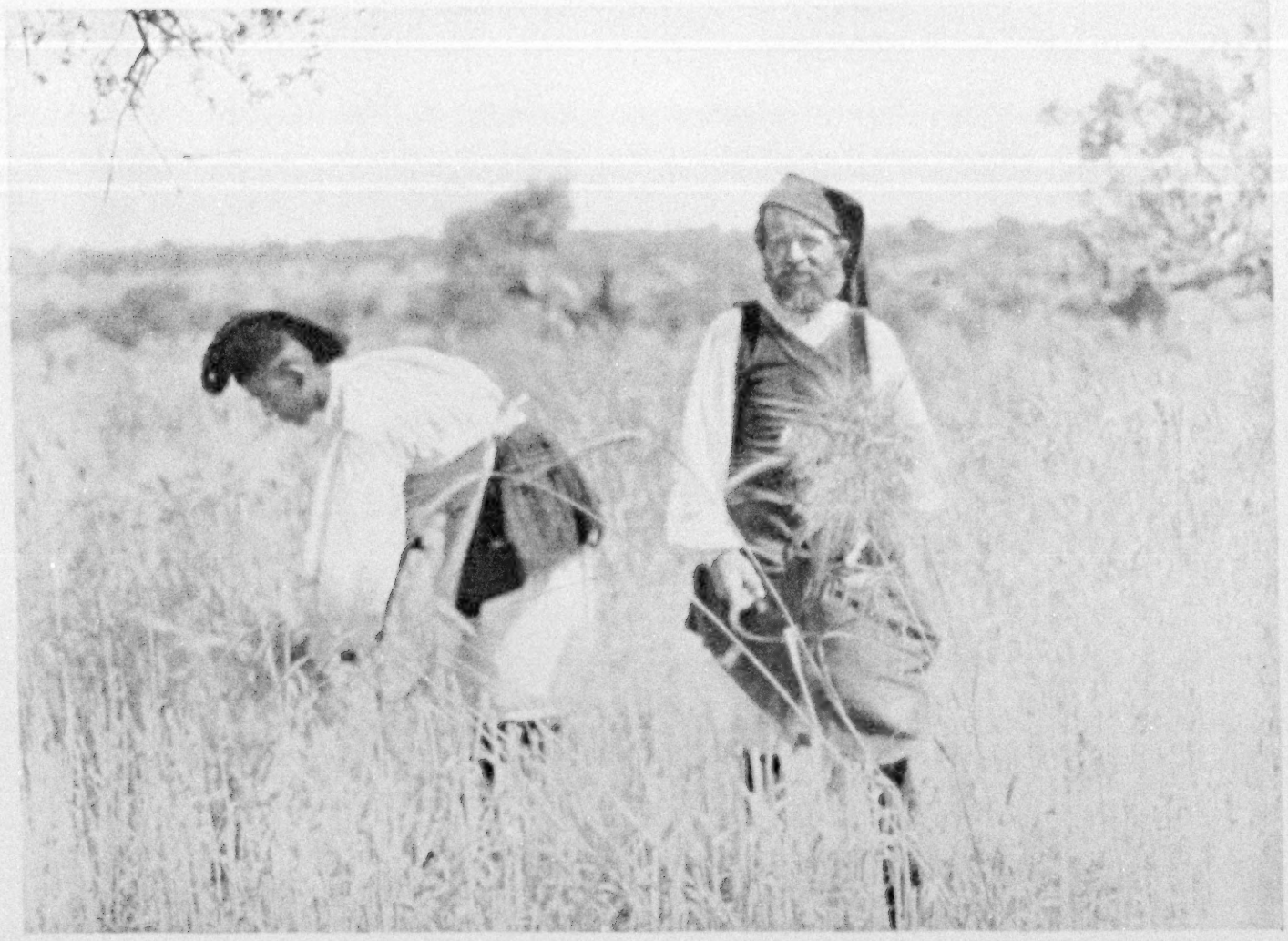
GIRLS AT DORGALI

Note the queer bonnets worn, made of many-colored silk

The scenery here compares favorably in grandeur with that of many countries of the world. The finest scenery is among the Gennargentu Mountains in the Barbargia Range, the highest peak being 6,233 feet above sea-level; on it there is usually snow from November to April. This region is called the Switzerland of Sardinia. In the other ranges are many picturesque peaks, as, for instance, Monte Albo, a group of limestone mountains with practically no vegetation on their slopes; so that the white mountains and the blue Mediterranean at their feet offer striking contrasts.

But, to return to the railway route, at Chilivani, one-third of the way down the island, is the junction of the road that goes west to Sassari, the capital of the northern province of Sardinia. This city is situated in the midst of a well-cultivated area, with groves of olive, almond, orange, and lemon trees and orchards of apples, peaches, cherries, and other fruits. The railway continues to the coast of Alghero, an interesting old Spanish port, at one time surrounded by a high fortified wall. It is here that Admiral von Tirpitz owns a large agricultural farm and has a villa, and where, at the beginning of the war, the Germans were suspected of having a base for supplying submarines.

To the south, about half way down the island, at Macomer, is another branch road to Nuoro, a distance of 35 miles and the center of a mountainous district, the Barbargia, which was at one time said to be the home of the famous Sardinian brigands. These are practically "extinct" now, although occasionally one hears of a man who has murdered a neighbor or a member of his family for some personal wrong and, in order to escape the carabinieri, or national police, flees to the mountains and lives as best he can, sometimes stealing a lamb or a goat from a shepherd or stopping a lonely traveler to ask for food or a few soldi. Unfortunately, the general impression outside of Sardinia, even in Italy, is that



Photograph by C. W. Wright

GATHERING THE WHEAT

Harvesting machinery is seldom seen in Sardinia. The head-dresses of these two reapers are peculiar to the island. This type of cap not only furnishes a covering for the wearer's head, but is an improvised lunch bag, from which he will abstract a loaf of bread at the noon hour. At night it serves as his pillow.

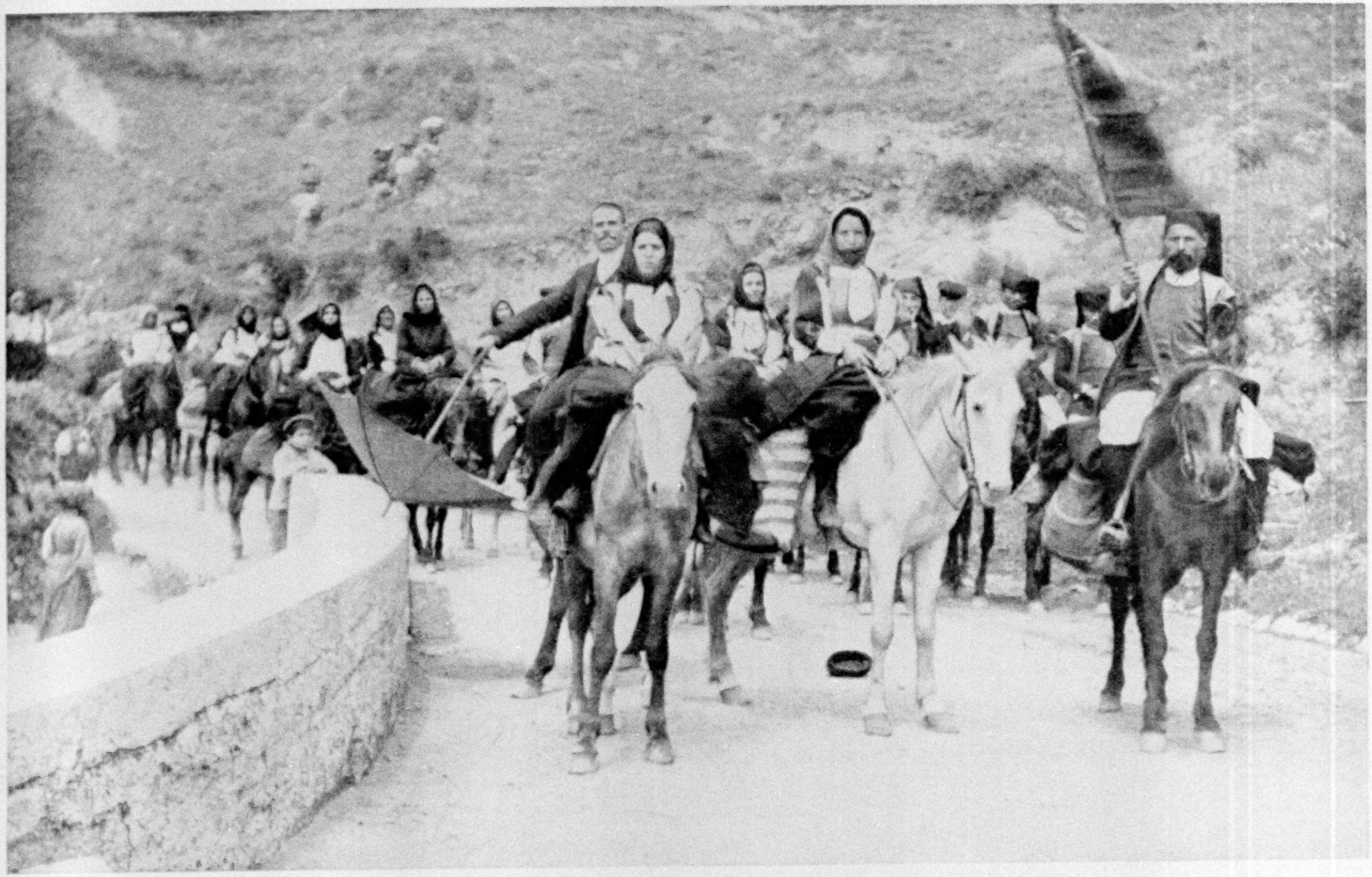
the island is more or less overrun by bandits; this is not true, and a traveler on the island today is even safer than he would be in southern Italy or Sicily.

MEDIEVAL TOWERS CROWN CAGLIARI'S HILLS

Macomer is the center of the region where many fine horses are bred for the army, as are also the small ponies used in Naples. After passing this town, the railroad descends to Oristano, on the west coast, noted for its pottery and particularly its delicious pastry and almond sweets. The road then runs diagonally across a valley, from 10 to 15 miles wide, which extends down to Cagliari, at the southeastern end of the island.

Cagliari is the principal port of Sardinia, and is often visited for a few hours by tourists taking the weekly steamer from Genoa and Livorno to Tunis. The bay of Cagliari is most impressive. On the right and left as you enter are hills, with mountains in the distance, while rising up from the lowlands directly opposite the entrance is the city, on a rocky hill 400 feet high. The top of this hill is encircled by a massive wall, built by the Pisans in the thirteenth century. At two of its angles rise the towers of the Lion and the Elephant, but of the tower of the Eagle, which completed the triangle, only the base remains. In the center of these fortifications is the old town and the cathedral. On the slopes of the hill outside the walls is built the modern city.

Surrounding Cagliari are shallow bays, which extend inland for many miles, and are of interest because of the government salt recoveries, where huge mounds of salt, 20 to 40 feet high, can be seen on the flats. In the spring flocks of flamingoes and other birds congregate on these lowlands and add to the beauty of the



CAVALCADE OF HORSEMEN AND HORSEWOMEN STARTING ON A PILGRIMAGE TO A SMALL CHAPEL IN THE COUNTRY

The banners carried by the leaders and the bright colors of the costumes make a striking picture. The saddle-bags are usually well filled in preparation for the feast

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TUNNY FISHING AT PORTO TORRES

We get the word "sardine" from Sardinia, but we get few sardines, for practically all of this "catch" is consumed locally. The tunny fisheries, on the other hand, are important and profitable. The Genoese control this industry on the island, for the Sardinians are not a maritime folk.

SKETCH MAP SHOWING SARDINIA AND HER RELATIVE POSITION TO ADJACENT MEDITERRANEAN COUNTRIES

SARDINIAN MINERS ON THEIR WAY TO WORK

Fifteen thousand natives find employment in the mines of the island. The center of this industry is in the southwestern corner, in the vicinity of Iglesias. Lead and zinc are the principal minerals, but silver, iron, antimony, coal, and copper are also produced. During the Spanish occupation of the island the mines of Sardinia were abandoned, for the soldiers of Aragon and Castile had discovered the fabulous wealth of the Montezumas and the Incas in the New World.

Photograph by C. W. Wright

THE COSTUMES OF ARITZO, CENTRAL SARDINIA

Just as the girls of the various towns and provinces of Holland are to be distinguished by the peculiar form of their quaint head-dresses, so the girls of Sardinian villages are known by the combination of colors in their costumes. The women and children dress alike—full skirts, usually dark red; white waists with full sleeves, and short bright red or bright blue jackets, open in front or laced around the waist. In some districts the pattern of the apron is the distinctive feature.

Photograph by C. W. Wright

GREETING THE TOURIST WITH A SMILE

Politeness is one of the striking characteristics of the Sardinians. As the traveler rides through a village the women, children, and the old men sitting at the doorways rise and cheerily cry out "Buon viaggro."

scenery. The land around the lagoons is especially fertile and well cultivated with truck gardens and vineyards, from which a very large quantity of wine is made.

Cagliari, the largest city on the island and the capital of the southern province, has about 53,000 inhabitants. The entire population of the island is estimated at 796,000, a density of population of 85 per square mile; this is a much lower figure than in any other part of Italy.

Among the objects historically interesting in Cagliari are rock-cut tombs on the hillside below the Castello. These are probably of the same period as the "nuraghi," the famous prehistoric remains in Sardinia, and some may have been enlarged by the Romans into the tombs which still exist, well preserved and with Latin inscriptions on their walls.

STRANGE RELICS OF THE BRONZE AGE

Of the Roman period an ampitheater remains. This is on the side hill to the west of the city and is fairly well preserved, with the passages under the tiers of seats. The work of the Pisans in the cathedral was begun in 1312 A. D. and finished by the Aragons in 1331, but later partly rebuilt by the Spaniards in 1669. Among the modern buildings is a beautiful city hall, recently completed; a university with its library, which has a valuable collection of manuscripts, among them a code of laws made by Eleanora of Arborea, who was a ruler of a part of Sardinia when it was divided into four provinces under the Spaniards. The southeastern corner of the old fortifications has been remodeled to form a "piazza" above the city. Here concerts are held at midday on Sundays during the winter months and on summer evenings. It is the fashionable promenade, as is also the Via Roma, a boulevard along the edge of the bay.

Throughout Sardinia prehistoric monuments are prominent in the shape of

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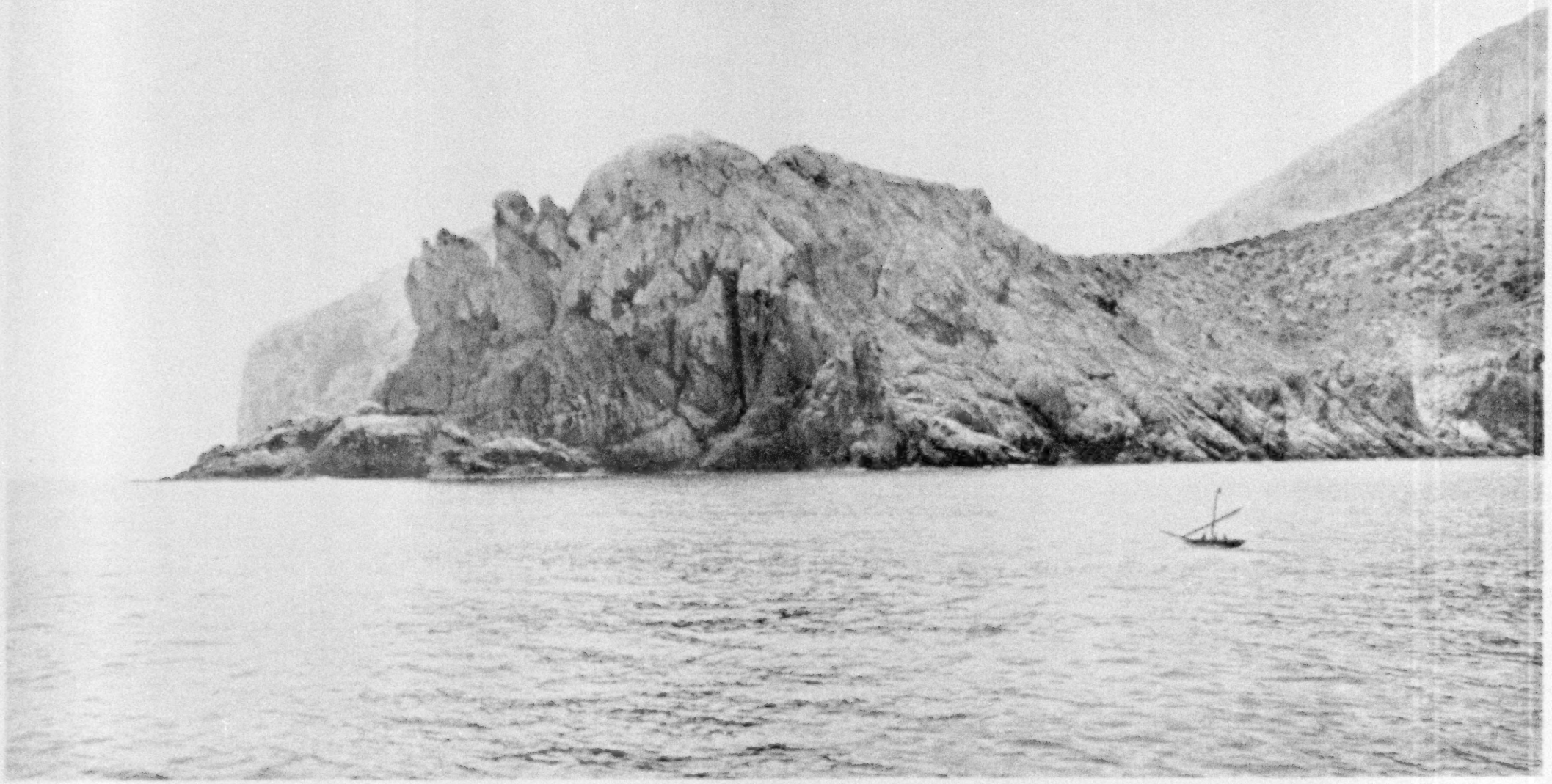
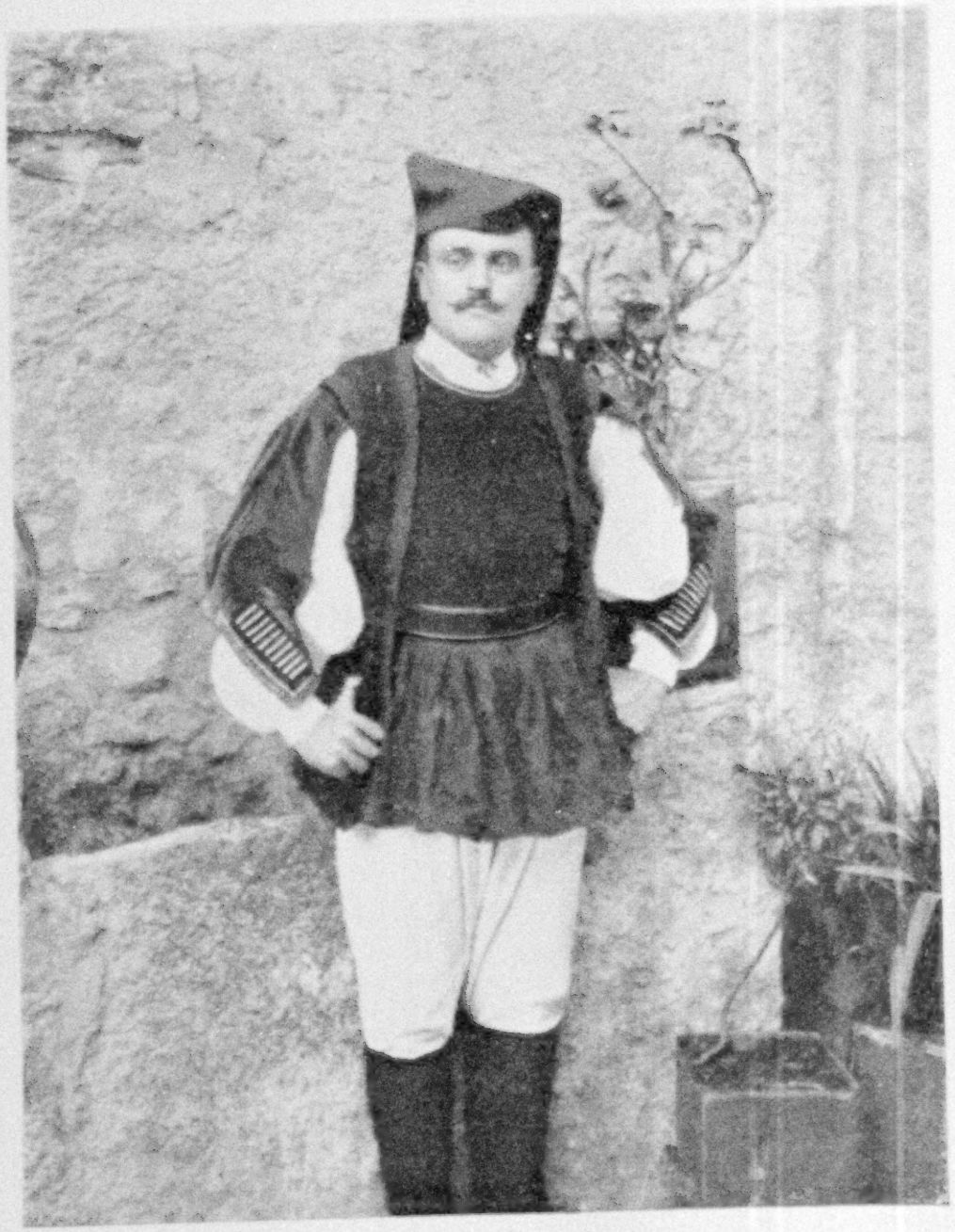


A VIEW OF THE ROCKY COAST NEAR THE NORTH END OF THE ISLAND

Cape Ferro is near the naval base of La Maddalena, on the northeast corner of Sardinia. Some miles south of this rugged point is the well-protected Gulf of Terranova and Golfo degli Aranci, where the traveler lands on the island after a night's voyage from Civitavecchia, the port for Rome.

A DOMESTIC SCENE IN SARDINIA

Many of the people of the island are victims of abject poverty, but their condition is not due to lack of industry. The styles never change among the women, who wear the native costume; so it repays the seamstress, the weaver, and the embroidery expert to make garments that will last a lifetime, and can then be handed down as heirlooms for rising generations.



THE COSTUME OF NUORO

The large white sleeves beneath the slashed sleeves of the jacket; the full, short skirt and close-fitting trousers, are typical. One would think the man had stepped from his place in a pageant of the Middle Ages instead of being garbed in this customary costume for feast days.

A PANORAMA OF CAGLIARI FROM THE HARBOR

The principal city of Sardinia is this town of 53,000 inhabitants. It was founded by the Phœnicians and has been the scene of many striking episodes in the history of the island. In the year 1000 it was the stronghold of the Saracen chief Musat, who, after many years of war, was finally driven out by the Pisans, the latter having been promised the island by Pope John XVIII provided they evicted the Mohammedans.

A YOUNG MARRIED COUPLE OF IGLESIAS

The Sardinians have a high regard for womankind. They are a vigorous, hospitable, grave, and decorous mountain race, suspicious of all innovations. The silver buttons and voluminous trousers of the bridegroom are typical.

truncated cones about 30 feet in diameter at the base and built of large rough blocks of stone about 2 feet high and of varying lengths. These towers are the "nuraghi" belonging to the Bronze Age and show that the island must have been well populated in the centuries antedating the Christian era. The entrance to the "nuraghi" usually faced the south and served to light the circular room within, as did also a door opening to a spiral staircase built in the walls and leading to a chamber above the ground floor. Few of the "nuraghi" have the roofing preserved entirely, so that we no longer see them in their full height or original cone shape. Some have two or three chambers on the ground floor with niches in the walls, probably for household gods.

These towers were undoubtedly forti-

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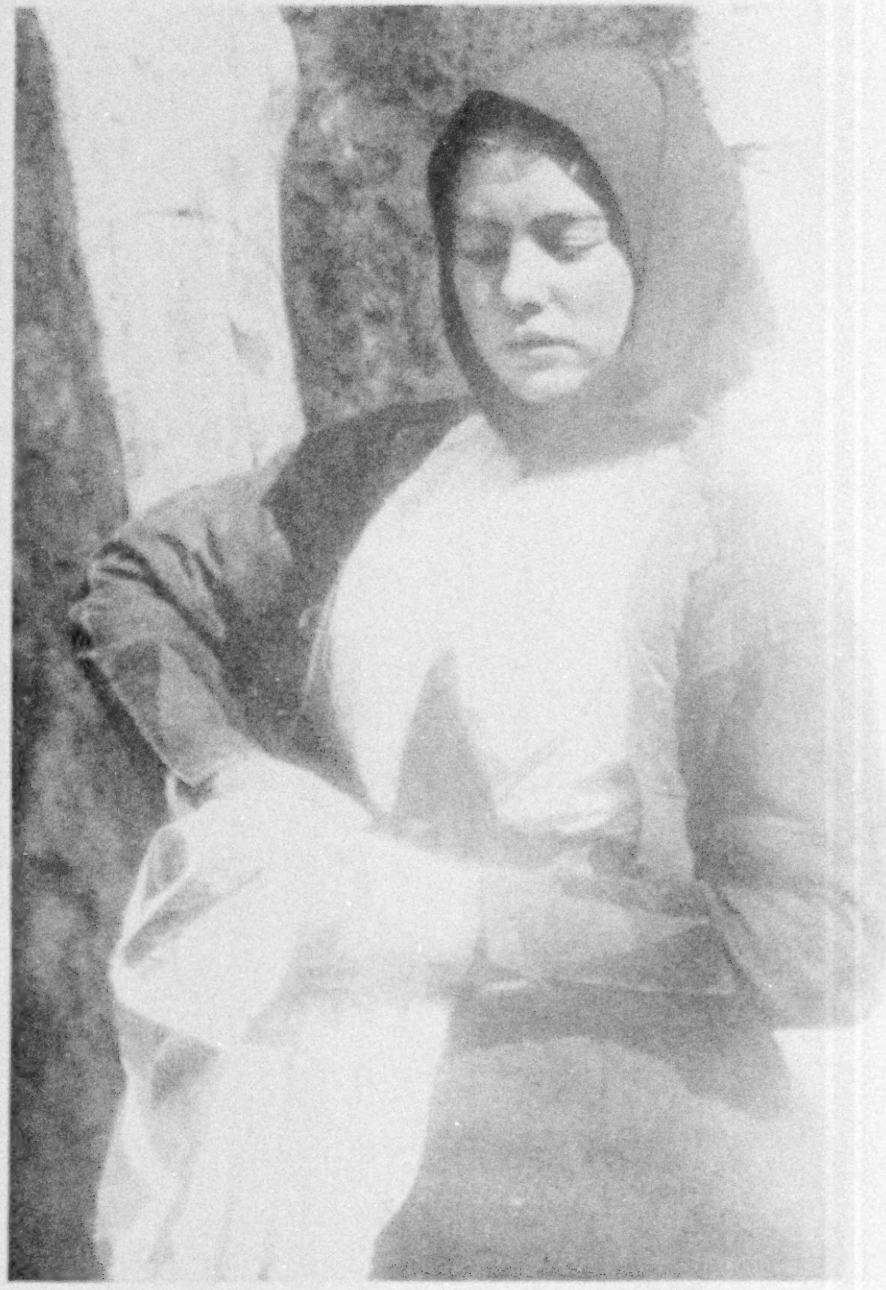
A LOVE SONG ON THE LAUNEDDA

This Sardinian musical instrument bears a striking resemblance to the pipes of the ancient Greeks. The serenader is wearing a sheepskin mantle, which, in addition to being his "Sunday best," is his talisman to ward off fevers.



A SARDINIAN MAIDEN

Not only in their features, but in their language, do the natives retain traces of the many races which have occupied the island through the centuries—Phœnicians, Carthaginians, Romans, Saracens, Italians, and Spaniards. Many dialects are spoken, but Italian is now taught in the schools, and the men acquire the official language during their period of compulsory military service.

Photograph by C. W. Wright

THE COMMUNITY LAUNDRY TUB

Every day is wash day in Sardinia, and the public fountain takes the place of the village well of the Orient and the sewing circle of the Occident as a social center

fied habitations. They are usually situated in commanding positions at the entrance to tablelands, near the fords of rivers, or on almost inaccessible mountain peaks, and within signaling distance of one another. Traces of at least 5,000 "nuraghi" have been found.

The ancient tombs of the inhabitants of the "nuraghi" are usually found near them. These are called the "tombs of the giants," and are chambers 3½ feet wide and from 30 to 40 feet long, with a roof of flat slabs of rock and with the sides made of the slabs or of rough walling. The bodies were probably arranged in a sitting position. In front of the tombs are circles about 40 feet in diameter, surrounded by stones; these were, no doubt, used for sacrifices and burial rites.

Another type of tombs found in Sardinia is that of the small grottoes cut in the rock like those in prehistoric cemeteries in Sicily. In these tombs and in the "nuraghi" sarcophagi were discovered, generally of marble; also idols consisting of small bronze figures varying from 4 to 17 inches in height, images of dogs, bats, apes, and other animals—all most crude in workmanship and grotesque in form; medals, coins, vases, ornaments, arms, and articles of terra-cotta and glass. Most of these latter must antedate the Roman occupation. Some of these relics and similar objects, including articles of jewelry dating from the Roman occupation, can be seen in the Museum at Cagliari.

LANGUAGE REFLECTS MANY RACES

The Phœnician settlement is the earliest of which there is any accurate knowledge. Sardinia was said to be the grain-producing center of the Carthaginians about 500 B. C. The Romans captured it in 238 B. C., and it was then noted for its supply of corn. The Romans built many towns and roads, and remains of their monuments, temples, and sepulchers

XUM

Photograph by C. W. Wright

A SARDINIAN SHEPHERD AND HIS FLOCK

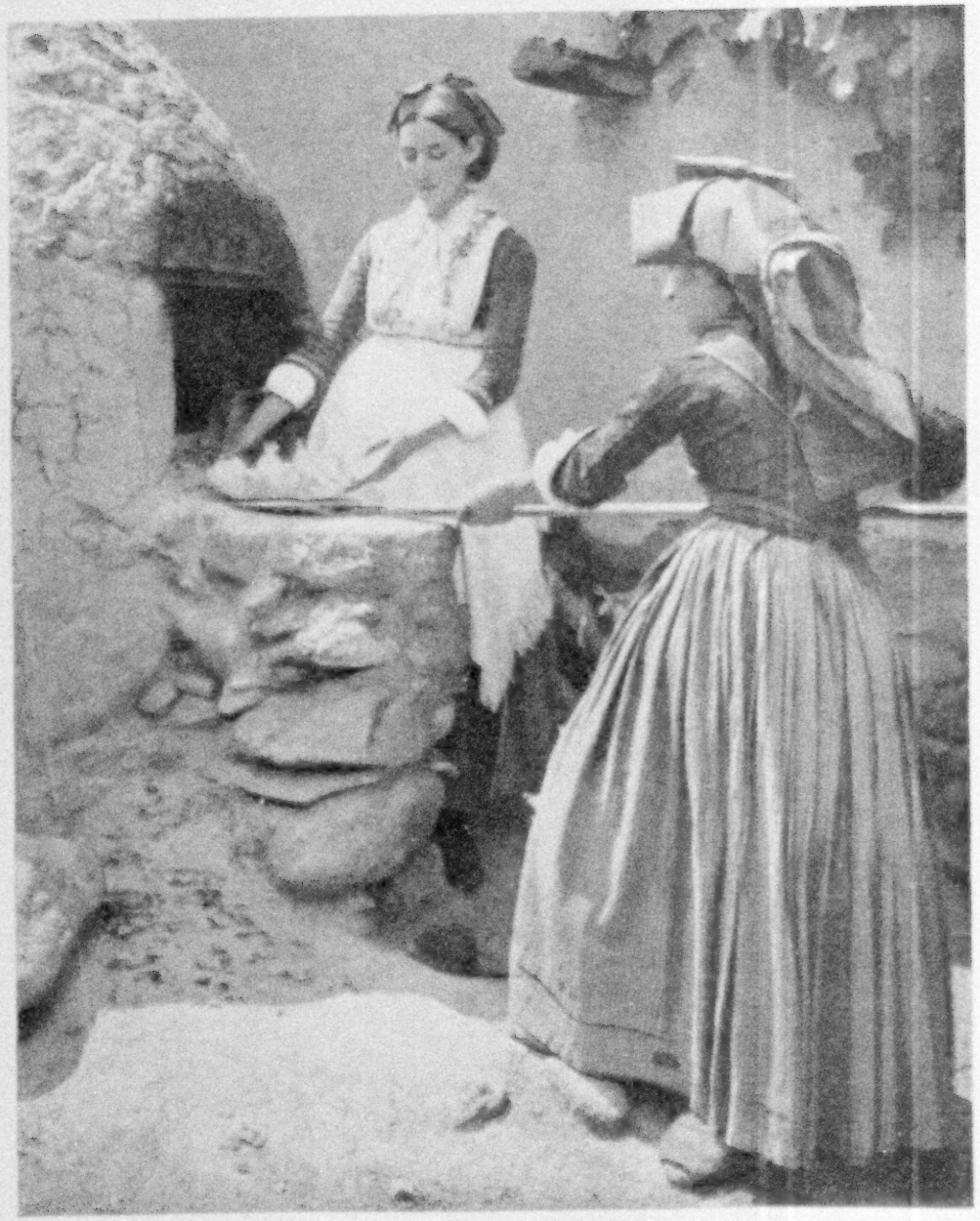
The donkeys of the island are remarkably small, as this typical mount of the herder shows. The sheep are prized not only for their wool, but for their milk, which is converted into cheese and sold on the continent as the Roman product.

XUM

Photograph by C. W. Wright

BENEATH THE TOMBS OF THE ANCIENTS

Viewed from a distance, these holes in the mountain side resemble natural caves, but they are the rock-hewn mausoleums of the "nuraghi," and are known as the "domus de gianas," or houses of the spirits. In contrast to these burial places are the "giants' tombs," crude sarcophagi of the prehistoric inhabitants of Sardinia, from 30 to 40 feet in length and 3½ feet wide and high.



SARDINIAN BREAD, MADE ON FESTIVE DAYS

The bread is a pure white, of fine texture, and is kneaded for hours before baking. The fair bakers are wearing their most elaborate costumes, reserved for religious festivals and holidays.

REMAINS OF AMPHITHEATER, NEAR CAGLIARI

This extensive ruin, with its rock-hewn benches, is a relic of Roman occupation. Sardinia furnished more human victims for the games in the great capital of the ancient world than sports for its own people. It is recorded that Sempronius Gracchus, after quelling two insurrections of mountain tribes, took 80,000 Sardinian slaves to Rome.

Photograph by C. W. Wright

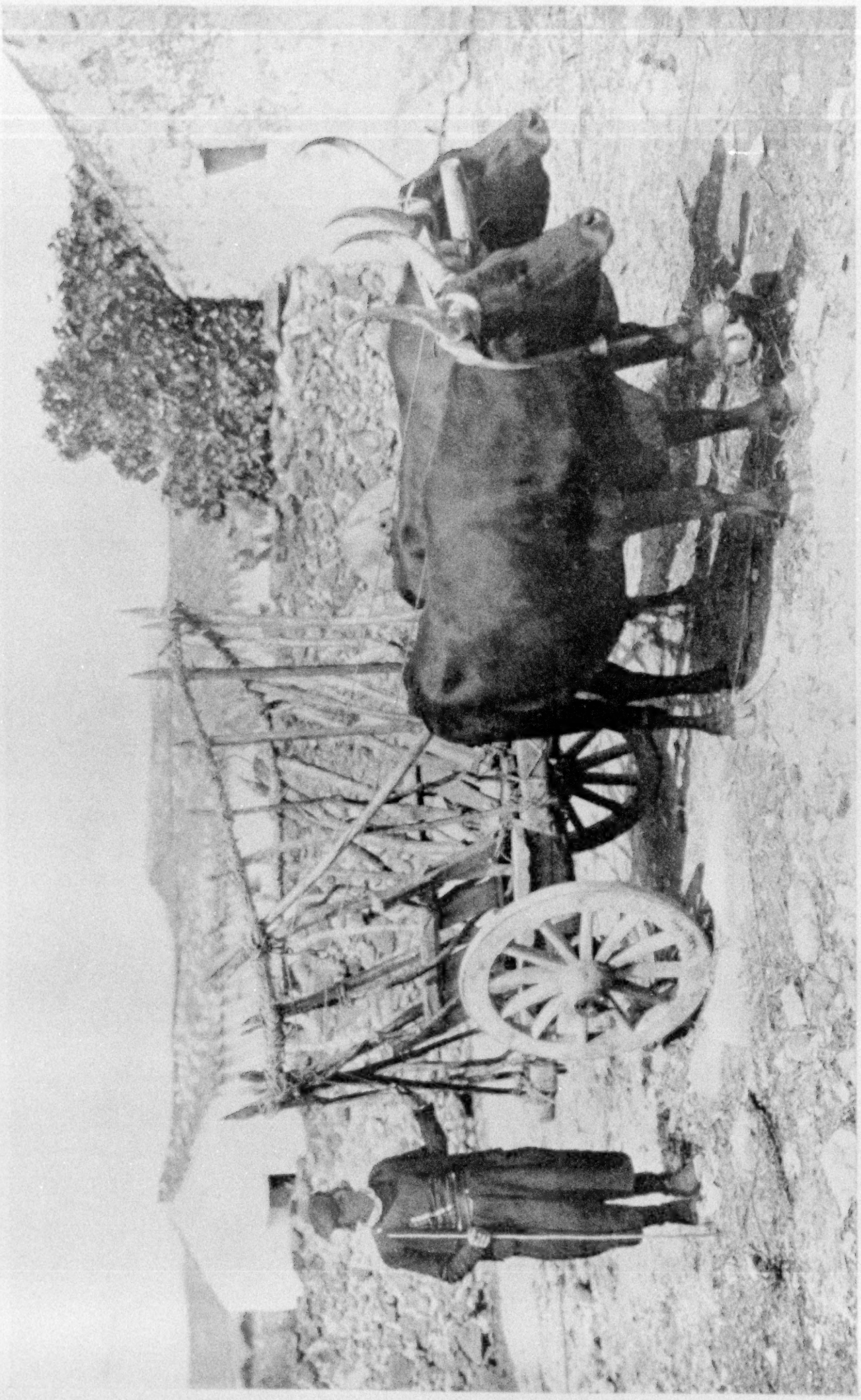
SHEPHERDS OF POVERTY-STRICKEN SARDINIA

One glimpse at this trio would be enough to send a shudder down the spine of a stranger who has feasted upon the out-of-date tales of bandit-ridden Sardinia, but these three crones are harmless natives, who, in spite of their bitter fight against heavy taxes and the relatively high cost of living, never annoy the tourists by begging, as do so many of the people of southern Italy.

are still preserved. The Byzantines captured Sardinia from the Romans and held it until the tenth century, when the Saracens took possession, and were in turn driven out by the Pisans. There are traces of the influence of Pisa in the fine Romanesque churches which are still well preserved. In some churches the late Gothic architectural style shows Spanish influence, which came after the surrender of the Pisans to Genoa, and then to James II of Aragon. In 1708 Cagliari surrendered to the English, but in the War of Spanish Succession the island came under the rule of Austria. Finally, after more exchange, it was given to the Duke of Savoy, who acquired with it the title of King of Sardinia.

It is not strange that the language of the people should contain elements of the languages of all the races which have occupied the island. The dialects, of which there are five or six, are a mixture of Latin, Spanish, and Italian, with a little Phœnician and traces of other ancient tongues. In Alghero, on the west coast, pure Catalan is spoken; in some villages almost pure Latin; and in Carloforte, on the southwestern coast, the Genoese dialect prevails. Italian, however, is now taught in the schools to the children, while the men acquire it during their compulsory military service.

To get an insight into the life of the inhabitants of this isolated island, one should visit its villages. It is in the entire eastern half, with its mountainous valleys and villages, where the real Sards now live. Here one will find them good looking and in good health, generous, hospitable, honorable, and quite poor. Politeness is carried almost to an extreme. Often as one rides through a small village the women, children, and old men sitting at the doorsteps rise and wish you a "buon viaggio"; or if it happens to be



TWO-WHEEL TRANSPORTATION IN SARDINIA

During the era of Roman occupation nearly 1,000 miles of roads were constructed on the island, and some of these are still well preserved. Although small, the Sardinian oxen make good draught animals.

noon, some may wish you a "buon appetito." Even the young boys are taught to take their hats off when strangers pass by; and if one is in an automobile and happens to stop to get out his kodak, a crowd of youngsters seem to spring up around the car, all anxious to be in the picture. To refuse a cup of coffee or a liqueur when visiting the house of an inhabitant of a village is an act of great discourtesy, and even the poorest have some beverage to offer.

NATIVES EXCESSIVELY POLITE

Generally speaking, the peasants seem to be somewhat downtrodden and do not realize their just rights. We thought the attitude of the man in the following incident most unusual: When motoring along one of the straight roads down through the valley to Cagliari, we saw a man ahead on horseback. He jumped off in a great hurry and, holding the horse by the end of the reins, got down into the deep ditch at the side of the road. As the car came up he was so interested in probably the first automobile he had ever seen that he forgot his horse, which, unexpectedly, gave a jump down into the ditch almost on top of the man, upsetting him and his saddle-bags into the mud. When we stopped to examine the harm done and to help him up he was very gratified and most profuse in his apologies for having disturbed us, saying: "Excuse me, excuse me; it was all my fault."

The music of the Sards is characteristic; not all quick and vivacious like that of the Sicilians or other southern Italians, but monotonous and slow, resembling very much the music of northern Africa. Often a long song will be sung to one phrase of a melody, like a sorrowful chant. The accordion is a favorite instrument, and in the villages on Sundays or other festas most of the inhabitants congregate in the principal piazza and dance to its music. The men and women form in a circle and dance slowly forward and backward, some of the younger men adding more complicated steps, occasionally breaking away from the circle and dancing with their partners; but the whole effect is dignified and staid.

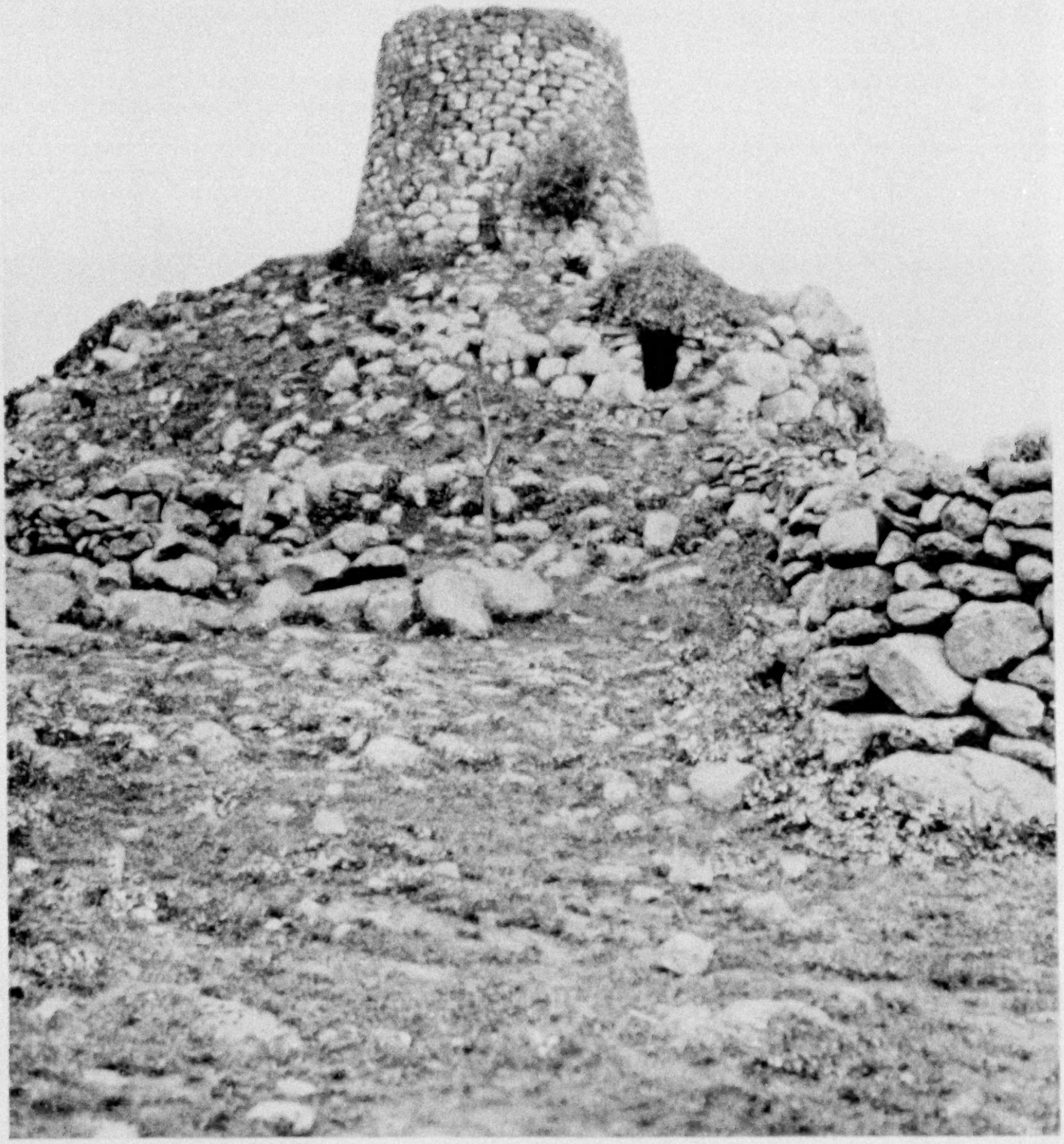
Each "paese" or village has its annual festival to celebrate the birthday of its own particular saint or some other church feast. The most renowned of these is the "festa" of "Saint' Efisio," the national feast of the island. The ceremony is in the form of a procession from Cagliari to Pula, a village 9 miles away, with the return to Cagliari. The saint was an official in the army of Diocletian, and for his conversion to Christianity was beheaded at Pula. On midday of May 1 the procession leaves and returns on the evening of May 4. It is composed of a cavalcade of horsemen all in the costume of the ancient Sardinian militia, escorting the image of the saint, which is preceded by musicians playing the "launeddas," an instrument made of three or four reeds of different lengths and like the pipe of ancient times.

In the region about Iglesias where the mines are, the workmen celebrate annually the festa of Santa Barbara, "the god of fire," which usually results in much wine drinking, followed by a few days' absence from work, so as to recuperate.

PICTURESQUE COSTUMES OF SARDS

The Sards' costumes are one of their greatest attractions. They are of rich, harmonious, though brilliant, colors, each village having its own distinctive type, which does not change from year to year; so the men and women are thus known by the clothes they wear. Unfortunately the general European type of dress is being adopted by the younger generation, and it is now difficult to find many towns in which the native dress is used by all the inhabitants.

There are a few such villages up in the mountains near Nuoro, where the railroad has not penetrated, and here it is most interesting to see the women and little girls all dressed alike. The skirts are usually very full, accordion plaited in some villages,with a distinctive trimming; white waists with full sleeves, and over these short jackets, open in front or laced around the waist. All in a town have the same combination of color, perhaps a dark red skirt and the jacket in bright red and bright blue, a diagonal stripe of each



NURAGHE, TO THE NORTH OF MACOMER, SARDINIA

Numerous prehistoric monuments like this relic of the Bronze Age dot Sardinia. The arrangements of the interior of these structures are such as to indicate that they were used as fortified habitations and not as tombs or temples. The diameters of these truncated cones range from 30 to 100 feet at the base, and they are from 30 to 60 feet high. The entrances, about 6 feet high and 2 feet wide, almost invariably face south.

Photograph by C. W. Wright

"GIOCARE ALLA MORRA!"

The game of "morra" holds for the man of Italian blood the same allurements that poker holds for some Americans, and that "craps" has for the southern darky. So excited do the morra players become over the hazards of this, their national betting pastime, that tragedies not infrequently result; hence the police frown upon the practice, but always with a certain fond indulgence. It is played entirely with the fingers and consists of trying to guess how many fingers your opponent will hold out at the instant he acts. It is more difficult than it sounds.

color meeting in the back, and with tiny bonnets of the two bright colors. In some the most distinctive characteristic is the covering of the head—a bright-colored handkerchief or a white veil folded back or held in place by a silver chain under the chin; in other towns the apron is characteristic in its color and shape.

The most elaborate dresses are, of course, kept for festas, and these have hand embroidery and are often of very

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heavy silks and brocades, sometimes with exquisite lace scarfs or veils folded back on the head. The jewelry is most elaborate, too—large gold buttons worn at the throat; large ear-rings and pendants. The costumes and jewelry are almost always heirlooms in the families.

The men's costumes usually consist of woolen leggings, white, full trousers, long or short, a full ruffle of black cloth worn around the waist; and this, too, differs in length. Some of the jackets are short and some long, but all have silver buttons down the front. The shepherd wears a sheepskin, on which the wool has been left, over his shoulders throughout the year, even in midsummer, and claims that it keeps away the malaria. In some districts the men wear a pointed cap resembling a Phrygian bonnet, long and narrow like a stocking, reaching almost to the waist; the point is either worn down over the shoulders or folded on the top of the head and may be used as a pillow at night. It is apt to contain anything from bread to snuff, which is indispensable to the older Sard. A queer custom of some of the younger men is to let the hair on the top of their heads grow often to 15 inches in length, and then roll it up into a puff, which looks like a pompadour, across the forehead.

Among the distinctive products of Sardinia is cheese made of goat's milk and used very generally by Italians. The wines are noted for their strength. An interesting export is cork, which is taken from the trees every five years, leaving the bare, red trunks noticeable all over the island. Many sheep, goats, pigs, cattle, and horses are raised and sold on the continent.

IMPORTANT MINING OPERATIONS

The mining industry is probably the most important, the principal metals produced being lead and zinc. Iglesias, in the southwestern corner, is the center of mining activity. The mines employ about 15,000 workmen, and the output is approximately 60,000 tons of lead concentrates and 120,000 tons of zinc concentrates annually. Some silver, iron, antimony, copper, and coal are also produced.

The tunny fisheries off the island of San Pietro are noteworthy. In the spring schools of these fish pass through the Mediterranean, and enormous numbers are caught in nets and brought to the large canneries at Carloforte.

There is very good hunting on the island. The moufflon, a cross between a wild sheep and a deer, is found in the mountains and is native only to Sardinia; there are also some fallow deer and red deer. By far the most numerous of the big game is the wild boar. Hare, partridges, woodcock, snipe, quail, and wild duck are all found in large quantities.

AN ISLAND OF WILD FLOWERS

The wild flowers are most beautiful, and there is practically no month in which a great variety is not found. Among these are orchids, narcissus, lilies, gladiolas, irises, cyclamen, fox-gloves, poppies, and sweet peas. In the summer months, usually from May until September, there is no rainfall. During the winter the rains are heavy and often accompanied by strong winds. In the northern part of the island a good deal of snow falls, and often the ground remains covered for a month at a time; but in the southern part of the island there is almost never any snow and seldom any frost. In the gardens there roses, heliotrope, calla lilies, nasturtiums, ivy, geraniums, marguerites, and many other flowers bloom all winter. It is during the summer that these cease blossoming.

May, June, and October are the months most pleasant for travel in Sardinia. The country is at its best then; the cultivated fields green, the wild flowers most profuse, the climate least variable, and the roads, which are covered with "ghiaia," or broken rock, from December to February, are then in perfect condition.

THE AWAKENING OF ARGENTINA AND CHILE

Progress in the Lands That Lie Below Capricorn

By Bailey Willis

WE NORTH AMERICANS, who live in a vast continent that lies nearly all in the temperate and cooler zones, scarcely realize that South America is four-fifths tropical. Fields of wheat and oats are familiar to us, but in South America are scarcely seen outside of Argentina and Chile, except in high, cool valleys. South America might be called a banana country.

Bananas grow from Paraguay to Mexico; wheat and oats flourish only in the tapering tip of the southern continent; and this gives to Argentina and Chile a peculiar interest among South American countries as the homes of vigorous, energetic peoples competent to rule themselves. To Argentina and Chile we may add Uruguay and the highlands of southeastern Brazil, and also the limited areas of the tropical Andes, whose altitude gives them cool climates. The rest of the continent, the vast interior, is the land of the siesta—the land to be developed and administered by peoples of the temperate zones.

The great task and obligation of Argentina, southern Brazil, and Chile, the A, B, C powers, is to guide the development of the tropical Americas, through the exercise of wise statesmanship, toward stability, peace, and prosperity.

Rio de Janeiro, on the Atlantic coast, and Antofagasta, on the Pacific, mark the southern limit of the tropics, and thence southward the southern continent narrows rapidly to the point of Cape Horn. The equivalent distance in North America is from Florida to Labrador, or from oranges to reindeer moss. Florida and Rio are both renowned for their oranges, and Cape Horn shares with Labrador a most inhospitable reputation: but it is more like Scotland than Labrador.

THE SCOTLAND OF SOUTH AMERICA

The southernmost land, tapering southward between the oceans, is nowhere so cold as the broad expanse of North America is in similar latitude, and Tierra del Fuego, a region of bogs, fogs, and snow squalls, is a congenial home for Scotchmen and long-wooled sheep.

Buenos Aires, the focal point of life and intercourse south of Rio, lies half way between Rio and Cape Horn, in the latitude corresponding to Charleston. Palms grow there in the public gardens, and yet, the houses being unheated, a northerner may greatly enjoy on a damp, chill winter day the soft coal fire which he will find where Englishmen congregate.

Neither very cold nor very hot, the seasons are similar to those of our coast from Norfolk to Charleston; but they are reversed. As the sun circles northward past the Equator their summer ends, while our winter half year begins. There is always summer, north or south; always winter, too. When we are preparing to leave the cities Argentine society is gathered from the country estates for pleasure and politics in the greater metropolis, which alternates with Paris and vies with the French capital in seasons of gaiety.

THE METROPOLIS OF THE SOUTHERN HEMISPHERE

Buenos Aires is to Argentina what Paris is to France—the center of the national industries, thought, and culture. Commerce, journalism, politics, the drama and music, literature, art, and social life are intensely focused there. The brilliant activity of the greatest city of the Southern Hemisphere (the fourth city of the Americas, after New York, Chicago, and Philadelphia) draws the Argentines to it as a flame attracts moths, and one-fifth of the population of the country struggles there in feverish competitor for pleasure and gain.

No traveler to the southern countries but stops as long as he may in Buenos Aires to enjoy or to study the most cosmopolitan, yet most latinized, of the

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A COWBOY CONCERT IN ARGENTINA

On the thousand and one big estates of the pampas of Argentina the cowboys live much of the time in houses on wheels. They sleep inside and find shelter from cold and rain there, but they cook and eat and rest in the open whenever weather conditions permit.

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PLAZA DE MAYO: BUENOS AIRES, ARGENTINA

Buenos Aires is the most populous and the richest city in the southern half of the globe. Fifty years ago the Argentine was what Illinois and Iowa and Kansas were a hundred years ago—it had millions of undeveloped acres of the best black soil the earth has to offer. But they were scores and even hundreds of miles from a railroad. Then came the railroads, opening up the country and making a thousand millionaires almost over night.

AN ARAUCANIAN CHIEF (CACIQUE) AND SOME OF HIS WIVES: CHILE

Photograph by A. S. Iddings. © Keystone View Co.

AN ITALIAN SETTLER AND HIS FAMILY: MENDOZA, ARGENTINA

Mendoza is the southern California of Argentina. Irrigation has long been successfully applied to its vineyards, which produce more wine than the combined vineyards of the entire United States of North America. The whole of the province lies at an altitude of more than 2,000 feet. Italians are, for the most part, employed in the cultivation of the grapes, the whole family accompanying husband and father to the field and assisting in tending the vines. The babies are put to sleep in improvised tents while their elders work.

Spanish-American cities. We shall have occasion to return to the metropolis that is at once the heart and the brain of the country, but first let us look at the land itself, of which the port is the gateway.

The location of Buenos Aires combines the advantages of those of New York and of New Orleans in all that relates to oversea and to inland commerce. Transoceanic routes converge to the Rio de la Plata as they do to the Hudson; the navigable waterways of the Paraná-Paraguay reach as far into the interior as the Mississippi-Missouri and offer deeper channels to navigation. As far as Argentine jurisdiction extends, the Uruguay, Paraná, and Paraguay rivers have been dredged and buoyed and already are prepared to serve as arteries of commerce, such as the Mississippi is yet to become.

North of the Rio de la Plata and between the Atlantic and the Paraná-Paraguay basin stretches the most beautiful and healthful region of semi-tropical South America. Here are the coffee plantations of Saõ Paulo, Brazil, the most productive of the world: here the German settlements of Santa Caterina and Rio Grande do Sul constitute the isolated Teutonic colonies; here Uruguay and Paraguay form buffer States between the great rivals, their neighbors, and here are included the rich Argentine Commonwealths of Entre Rios and Corrientes.

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A WELL-TO-DO FARMER AND SOME OF HIS VAQUEROS

A LAND OF VAST POSSIBILITIES

Equivalent in area to the region which stretches northwest from the Alleghanies to the Mississippi and the Great Lakes, equal to the States of Alabama, Mississippi, Tennessee, Kentucky, Ohio, Indiana, and Illinois in extent, beautiful in upland landscape of verdant hills and valleys, this territory invites a dense population whose prosperity would be assured under a good government.

But divided as it is by arbitrary political boundaries, misgoverned with various degrees of misgovernment, it lies inert. The failure of individual and governmental initiative, the isolation of the frontier, where weak settlements face the forest, the lack of roads and railroads leave the interior still a part of the wilderness.

Santos in the north and Montevideo in the south are the outlets of this rich country. Both are important shipping ports, from which railways radiate westward and northwestward. Eventually they will be connected with one another and with Asunción, on the Paraguay, by lines that will develop and will exploit its resources.

Montevideo holds a position naturally superior to that of Buenos Aires, and were it the capital of an equally great republic might rival the latter in wealth and population; but, limited as Uruguay is by the Argentine and Brazilian possessions to the proportions of a petty State, it constitutes the hinterland of a secondary city, which Montevideo will long and perhaps always continue to be.

The Rio de la Plata separates two widely different districts—the wooded uplands of Uruguay and the treeless pampas of Argentina. The former is the southern extension of the great region of Brazil, and although now largely brought into cultivation, it is a region where trees flourish as a part of the indigenous flora. The pampas, on the other hand, have always been treeless until plantations of eucalyptus or orchards of fruit trees were laid out upon the estates of wealthy Argentines.

PAMPAS COMPARED WITH PRAIRIES

The pampas are a vast grassy plain. Is there anything more to be said? As an Englishman put it, "What can you say about a bally billiard table except that it is a bally billiard table?" Yet the plain of the pampas is not like the great western plains of the United States. The latter are broken by gullies, furrowed by streams, traversed by river valleys. The pampas are not.

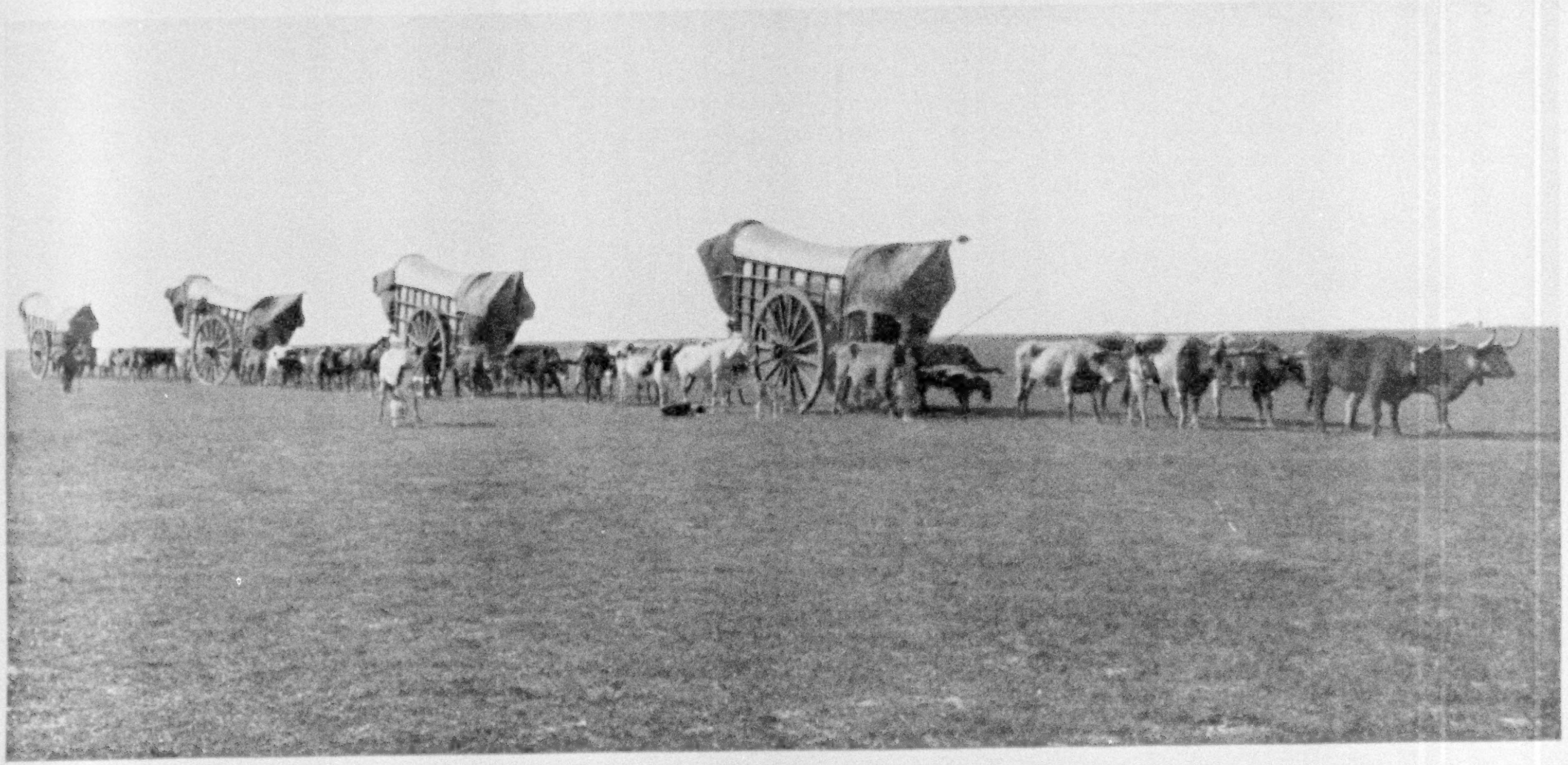
Among all landscapes of the world there is none more meadow-like than the flat pampa, with the cattle grazing in the rich grass; but the meadow grass hides no meandering brook. Hour after hour and day after day you may ride without crossing a stream. You will, however, encounter many shallow pools and lakelets.

The pampa looks so flat, so featureless! But is it? Watch a horseman galloping away toward the horizon, toward which he rises silhouetted against the sky. Soon he sinks and drops out of sight, having apparently ridden over the edge of the world; but an hour later he may rise again, topping a more distant swell of the vast grassy ocean surface. North, east, south, or west it is the same—a billowy plain, hollowed and molded by the wind, the free-flowing air, which in place of running water has sculptured the immense expanse of fine brown earth.

THE AMERICAN WINDMILL'S GREAT SERVICE

It is a paradise for cattle in the average year, when the rain fills the lakelets and the pasture, whether freshly green or cured to natural hay, affords abundant feed. Occasionally a dry season intervenes; the water pools dry up; the plain becomes a waterless desert. Formerly in such years disaster overcame the herdman and his herds. Lingering by the shrinking pools, hundreds of thousands of cattle and sheep suffered from thirst and famine till they fell and mummified in the dust. It is somewhat different now.

The seasons still vary inexorably, and from time to time comes one of drought and loss; but it has lost its gravest menace. Scattered over the pampa, wherever they may be wanted, are windmills, and beside each mill is a tank and drinking trough. The wind, which so sculptured



THE ARGENTINE VERSION OF THE AMERICAN PRAIRIE SCHOONER

Here is a woman who owns 180 square miles of prairie land; there an Irishman who landed penniless fifty years ago and now has land valued at $20,000,000. Some of these big land-owners are still many miles away from the railroads. The 8-ox cart takes the place in this antipodal bonanza farming country of the 4-horse team on the American farm.

Photograph by Nevin O. Winter

THRESHING ON THE PAMPAS WITH AN AMERICAN ENGINE AND AN ENGLISH SEPARATOR

The people of Argentina annually raise for export forty dollars' worth of foodstuffs per capita. The highest prices ever paid for breeding stock has been paid by the Argentines, with the result that they have the finest draft horses, the best of beef cattle, and the highest type of sheep. Argentina is becoming one of the world's great granaries.

the hollows of the plain that a very large proportion of the rainfall sinks into it, now pumps the supply back to the herds, which otherwise might perish stamping the dust just above the subterranean waters.

Man meets Nature and conquers her, the more effectually the more intelligently he goes about it. Common sense impels the ranchero to erect windmills, or in seasons of drought to drive his cattle to districts of more abundant rainfall. The Argentine is also raising fodder crops, and as the cattle industry becomes organized on the sound economic basis of the greatest good for the greatest number, instead of the system of *"Sauve qui peut,"* the herds of the pampa will no longer know the famines that in earlier times depopulated the plain.

The soil and the climate of the pampas give the Argentine Republic its high rank among the wheat and corn growing countries of the world. The soil is an ancient alluvium, the fine sediment carried by old rivers far out from the mountains, like the deposit now being made by the Paraguay and its tributaries, an island delta far in the interior of the continent. The sediment was very fine, and mingled with it is a large proportion of fine volcanic dust, blown from the volcanoes of the Andes.

It covers about 200,000 square miles in the provinces of Buenos Aires, Santa Fe, Córdova, and San Luís. Like the renowned loess soils of China, it is exceedingly fertile and, being very porous, absorbs the rain waters, which rise again by evaporation and supply the surface soil constantly with plant food.

WHEAT REGULATED PROSPERITY

In former days it mattered nothing to the world at large and comparatively little to the Argentine himself whether the season was a favorable one for wheat or not; but now, when millions beyond her confines look to Argentina for bread and when Argentine prosperity is regulated by the wheat she sells, it matters much.

The time will come, probably, when plentiful rains or drought will matter less than now; for at present agriculture in

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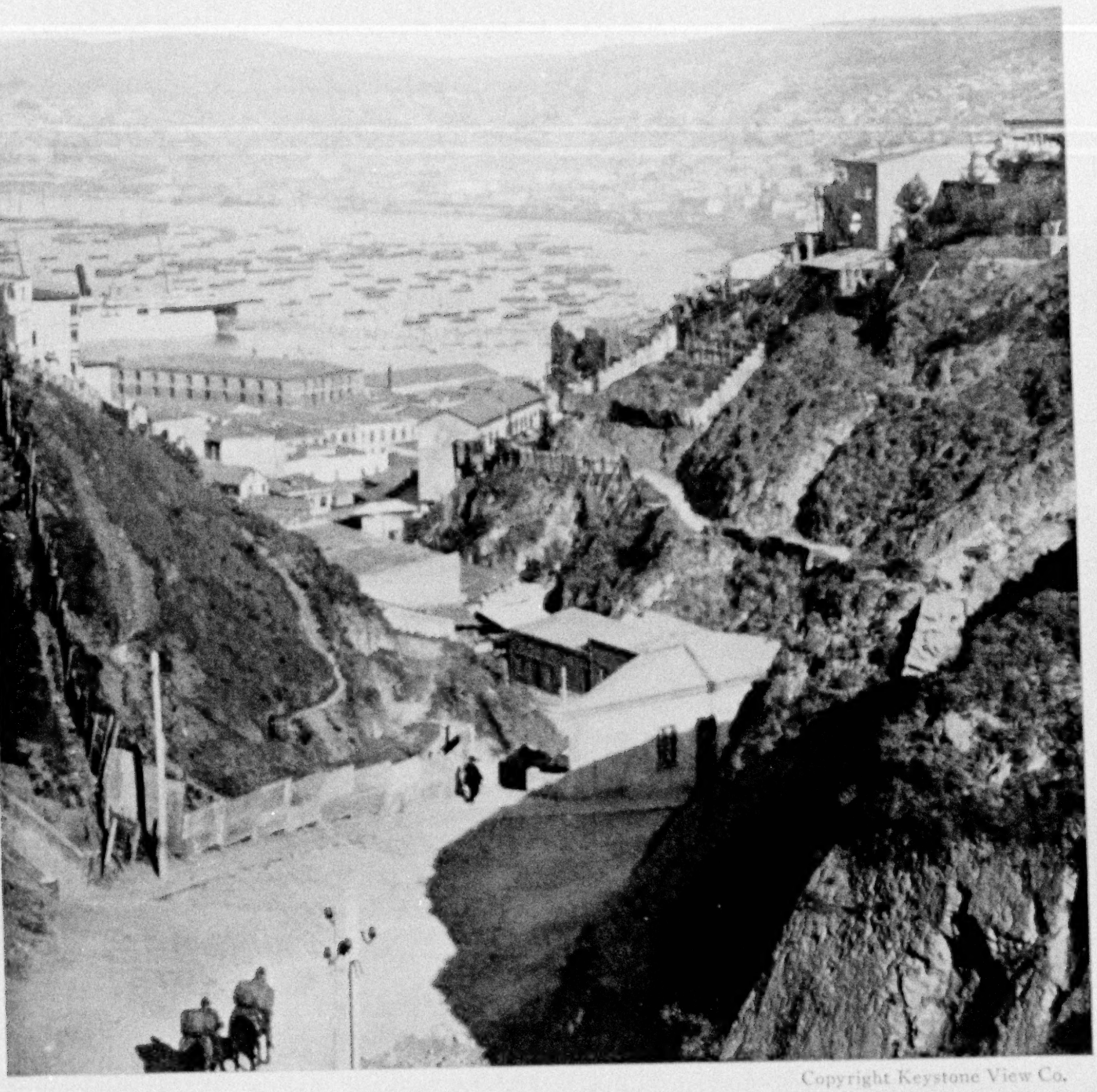
Photograph by Bailey Willis

MIRROR LAKE (LAGO ESPEJO), IN THE ARGENTINE NATIONAL PARK, NORTH OF LAGO (LAKE) NAHUEL HUAPI LAKE REGION OF THE ARGENTINE ANDES, TERRITORY OF RIO NEGRO

The boundary with Chile follows the distant crest, with summits at about 6,500 feet above sea. The altitude of the lake is 2,560 feet—near the line of the transcontinental railway from Puerto San Antonio, Argentina, to Valdivia, Chile.



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THE BAY AND CITY: VALPARAISO, CHILE

The city of Valparaiso, as well as almost the whole of Chile, have been severely tried by earthquake, and the fact that the nation has risen from each such disaster with no apparent interruption to its growth is nothing short of remarkable. The city was almost wholly destroyed on August 16, 1906, by an earthquake and the terrible fires which attended it, sustaining a $100,000,000 property loss. Yet within a single decade few, if any, traces of the disaster may be seen, and the city is larger and more prosperous than ever.

Argentina is in that elementary state when it is most exposed to injury by the vicissitudes of climate. Great fields are cultivated by few hands. The poorly prepared soil, the shallow plowing, the neglect of cultivation, all invite losses in any but a favorable year.

In the east the rainfall is usually abundant or excessive. There are areas of Buenos Aires province which are inundated by heavy rains, and great drainage works have been undertaken by the government at the instance of the landowners. From east to west the rainfall diminishes till it becomes insufficient for agriculture in the average year, and farming can prosper only where irrigation is practicable.

SOILS SUITED TO EVERY CROP

Thus the pampas, of which we may think as a monotonous region, exhibit

Photograph by Bailey Willis

VALLEY OF PILEANYEU: RIO NEGRO (BLACK RIVER), ARGENTINA

Resurrected peaks in the treeless pampas of Rio Negro, 50 miles east of the Andes. These rocks represent an old mountain ridge which was completely buried under volcanic ash and has been exposed again by erosion. The valley is characteristic of the grazing country at 3,000 to 4,000 feet above sea.

great diversity of aspect. Proportions of them may be flooded while other distant regions of the same plain are drying up. Portions are suited to the growing of wheat, others to cattle raising, and still others in the warmer, rainy zone about Rosario are adapted best to the raising of Indian corn.

The Great Southern Railway of Buenos Aires compiles for its own information charts which show the quantities of wheat, oats, linseed, cattle, sheep, and alfalfa received at each of its stations year by year. Thus the management may know not only what income any station yields, but also what is the crop that produces the particular return. It is most interesting to observe the grouping of products—wheat in this district, oats in another, cattle elsewhere—each in its preferred localities predominating over minor quantities of the other products and demonstrating the existence of controlling factors which give great economic diversity to the apparent natural monotony of the pampas.

In part due to natural conditions, in part dependent upon artificial ones, such as the lack of roads, these factors are changing from year to year; and they are destined to change constantly in the direction of greater security and productiveness in agricultural pursuits as the country passes from the actual primitive conditions of development to those of a more advanced community.

THE HUB OF THE ARGENTINE WHEEL OF FORTUNE

To gain an idea of the extent of the fertile pampa region, one needs but look at a railway map of Argentina. Buenos Aires and Rosario are the two ports of shipment of its products, the centers from which traffic radiates to all sections of the country. English and other capital has been expended to the amount of 200,000,000 pounds sterling in building railways to develop the rich lands, but in the more arid and less profitable country the lines have been extended only as trunk lines, aimed to reach some distant point. The pampas are the hub of the Argentine wheel of fortune, of which Buenos Aires, the Argentine El Dorado, is the center.

The area of the pampas, about 200,000 square miles, is one-sixth of the country. In the larger part which lies beyond the pampas, the other five-sixths, there is a great extent of lands destined by the general scarcity of water to pastoral pursuits; there are some real desert areas; and there are also districts of great natural resources, which are either actual or potential contributors to the natural wealth.

THE ROME OF THE ANTIPODES

In the Argentine all travel, all enterprise, all development, stars from Buenos Aires. Let us place ourselves in that Rome of the Southern Hemisphere, from which all roads lead, and make rapid excursions to the more interesting of the outlying provinces of her commercial dominion.

An excursion to the northward may pass by rail through the provinces or States of Entre Rios and Corrientes to the Territory of Missiones, which was secured by Argentina through the arbitration of her boundary with Brazil by President Cleveland. Entre Rios and Corrientes are lands traversed by ancient watercourses of the Paraná, which form wide expanses of swamp among the moderately high ridges and plateaus.

Missiones, an extension of the western table-land of Brazil, is a paradise, like upland Florida, scarcely ever touched by frost. This is the route to Paraguay and the old city of Asunción, from which the traveler will prefer to return by one of the steamers plying down the river of Buenos Aires or Montevideo; or, if it be one of the Brazilian Lloyd line, even making the voyage to Rio.

The line of the Central Córdova Railway, after leaving the Paraná and Rosario, runs through Córdova, the conservative seat of Spanish aristocracy and learning, and on through the desert of Santiago de Estero to Tucumán, the oasis where the sugar monopoly flourishes. Tucumán lies in a local area of greater rainfall at the foot of the superb Aconquija Range, a spur of the Andes which towers more than 10,000 feet above the city.

Where the streams from the mountains spread upon the tropical plain, there

Photograph by Bailey Willis

LAKE NAHUEL HUAPI: ARGENTINE ANDES

View from the outlet of the lake, where the Rio Limay (Limay River) leaves it, toward the Andes. The lake is 60 miles long, winding to the right behind the promontory and penetrating to the heart of the Andes. The new transcontinental railway between Puerto San Antonia, Argentina, and Valdivia, Chile, will cross the Limay at this point and skirt the lake opposite the range. Mount Tronador, the highest visible peak, has an altitude of 11,400 feet.

are extensive plantations and refineries; and on the mountain slopes are the villas of the wealthy planters, who may be whirled in a few moments in their autos over well-built roads to temperate or even to alpine climes. Extending still farther northwest, the railway reaches Quiaca, on the Argentine boundary, where it is eventually to be connected with the Bolivian system that centers in La Paz. Those who do not mind two or three days' staging may even now go on via La Pas to Antofagasta or Mollendo, on the Pacific coast.

Córdova, the old university town, was linked in the old colonial days by such lines of commercial intercourse as existed and by ties of interest rather with Tucumán, San Juan, and Mendoza, the centers of population in the Andes, than with the isolated settlement of Buenos Aires on the coast; and in sympathy at least the relation still holds. Provincial conservatism is characteristic of the interior cities. In Mendoza, however, wealth has done more to modify the old customs than in Córdova.

THE SOUTHERN CALIFORNIA OF SOUTH AMERICA

Mendoza is the southern California of Argentina. Irrigation has long been successfully applied to her vineyards and she has grown rich on their products. She lies also on the historic route across the Andes by which San Martín entered Chile with the army that liberated that country from the Spanish dominion. The railway now ascends by the valley of the Mendoza River over the barren wastes of the high Andes, which are here cursed by both drought and cold; and, passing through the summit at 10,600 feet, descends rapidly to the valley of the Aconcagua River and the fertile plains of central Chile.

In our excursions thus far we have traveled among the centers of the old Spanish settlements founded 300 years ago. Now let us turn to the south and southwest, to the country where the Indians were dominant till within 30 years, where explorers now living have been held captive by them, or have been able to traverse the plateaus and mountains only as companions of the roving Indian bands.

Bahia Blanca is today a city of 70,000 inhabitants, with extensive wharves, huge wheat elevators, and various lines of railways converging to it. Yet as late as 1879 it was an outpost which was repeatedly isolated from Buenos Aires by powerful Indian raids. Now the intervening pampa is all converted to private property and divided by wire fences.

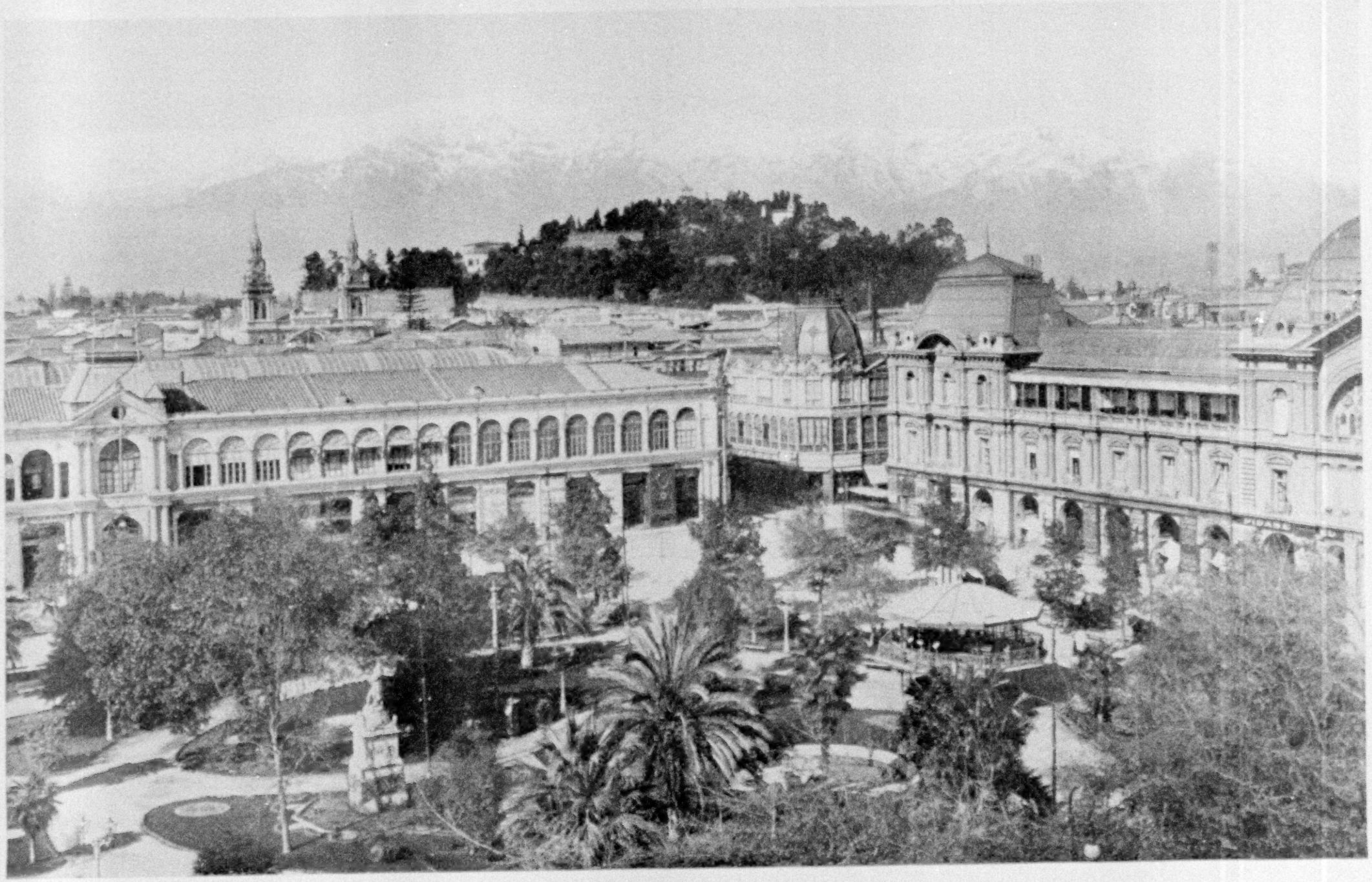
A POOR PROSPECT BECOMES A RICH INVESTMENT

When, in 1902, war over the question of the boundary in the Andes seemed imminent between Argentina and Chile, it was felt that easy communication must be established between Buenos Aires and western Patagonia, where the disputed boundary lay, and the government gave the Great Southern Railway of Buenos Aires a very liberal concession to build a branch from Bahia Blanca westward up the valley of the Rio Negro as a strategic element of defense.

The company undertook it unwillingly, for the country was considered a desert; but the road has paid interest on its cost almost from the first year after its construction, and, being now extended beyond the valley of the Rio Negro to a low pass in the Andes, it will ultimately form a transcontinental route which will connect Bahia Blanca with Concepción.

In the valley of the Rio Negro is a region which, through the utilization of the waters of that great river for irrigation, is being converted into one of the garden spots of the Republic. The climate, which in temperature resembles that of our south Atlantic coast, the fertile soil, and the abundance of water, which will eventually be brought under control, so as to minimize the effects of floods and the scarcity of the dry seasons, all combine to give this district a rich promise. At present it is still in the initial stages of development, lacking adequate organization of its industries and society and needing competitive development of means of communication with its markets.

In this excursion to the valley of the Rio Negro we reach the southern limit of the connected Argentine railway sys-



VIEW OF SANTIAGO, CHILE, WITH THE ANDES IN THE BACKGROUND

"Santiago is the chief city of Chile, but not in the same degree as Buenos Aires is of Argentina. It contrasts with Buenos Aires as the conservative capital of a small country with the metropolis of the continent. You feel in the Chilian capital the conservative character of the people; in Buenos Aires the liberal spirit of the world city" (see text, page 139).

tem. We are on the northern borders of Patagonia, the synonym for remoteness and isolation. Yet within its confines are to be found immense sheep ranches, managed not only by Argentines, but the largest and best of them by Scotchmen and Australians, who direct the investment of English capital. National railways have been extended at government cost from several ports of the Atlantic coast into the interior, and when the wave of prosperity once more returns to Argentina, as following the present depression it soon will, Patagonia will invite still larger investments of capital and take rank among the growing territories of the Republic.

A HIDDEN SWITZERLAND

One is constantly surprised at the magnitude of the far southern country. Hidden in the Andes of Patagonia and occupying but a small part of their great length is a country as large as Switzerland—a region of beautiful lakes, forests, and snow-covered peaks.

We have now spoken of southern Brazil and of Argentina. There remains of the temperate lands of South America only Chile, that longest and narrowest of all the countries of the world. Having a greater extent from north to south even than Argentina, it stretches 2,700 miles, from Cape Horn to the deserts of Atacama, within the tropics. Its width is rarely more than 125 miles from the ocean to the Andean crest. If we were to place it upon a similar stretch of coast in North America, it would cover Lower California, California, Oregon, Washington, and British Columbia to the St. Elias district of Alaska.

Chile is divided into three sections by the natural features of the Pacific slope of the Andes. The northern is that of the semi-arid and desert region, which reaches from Peru southward to Valparaiso. It is an utter desert in the north and becomes less inhospitable toward the south. It is traversed from the Andes to the coast by short, deep valleys, separated by high spurs of the mountains, and communication from north to south has always been exceedingly difficult. Nevertheless, the Chilean engineers have found a route by which to extend the State railway which shall link Santiago with the territories conquered from Peru.

THE HEART OF CHILE

The central section extends through 9 degrees of latitude for a distance of about 600 miles from Valparaiso to the island of Chiloé, south of Puerto Montt. This is the heart of Chile, the only portion of the country which can support a sufficient population to constitute a nation. The area is not large, about 100,000 square miles, and much of it is occupied by mountain ranges of great height and ruggedness.

But between the Andes and the coast range there extends in this section a valley similar to that of California, which is the seat of the Chilean people. Many rivers rising in the Andes descend to it and meander more or less directly westward through the coast range of the Pacific; but the intervening divides are nowhere of such altitude as to interrupt the continuity of the great valley that extends from north to south. Santiago is situated at its northern end, and flourishing cities are located at each favorable point on the railway that connects the capital with Puerto Montt.

The climate as we go from north to south becomes ever more humid, and we pass from the irrigated lands about Santiago to the dense forest swamps of the southern portion of the district. While much of the land has been cleared or is in the process of clearing, in a state which reminds one of our own Pacific coast 30 years ago, other areas remain impenetrable forests, still unexplored after nearly 400 years of occupation of the country.

The third section of Chile, extending southward from Puerto Montt through 14 degrees of latitude to Cape Horn, is like our southern Alaskan coast—a stretch of islands and peninsulas broken by intricate channels and profound fiords that penetrate far into the land. Tumultuous rivers descend from the Andes and debouch into the fiords in swampy deltas which are covered with dense forests.

XUM

Photograph by Bailey Willis

THE PASS OF THE BLACK BOX OR CAJÓN NEGRO: ANDES

The Bahia Blanca-Concepcion transcontinental railway will be located high above the lake (Lake Villarino) and will pierce the range below the pass in a tunnel a mile long, at 3,800 feet above sea

The large island of Chiloé, which was conquered by Valdivia before the middle of the sixteenth century, is well populated and occupies a position with reference to the more frequented northern coast similar to that which Vancouver Island holds to San Francisco. Farther south the population becomes very scanty, glaciers descended from the Andean heights, and the savage but majestic scenery of Smythe Channel and the Straits of Magellan suggest that of the inland passage and Lynn Canal of the Alaskan coast.

SANTIAGO AND BUENOS AIRES

Santiago is the chief city of Chile, but not in the same degree as Buenos Aires is of the Argentine Republic. Buenos Aires has become almost the Republic itself, in the sense that Paris is France; but Santiago is but the capital of the country, which has other cities that may compare with it in local importance. Santiago contrasts with Buenos Aires as the conservative capital of a small country with the metropolis of the continent. You feel in the Chilean capital the conservative character of the people; in Buenos Aires the liberal spirit of the world city.

The people who are developing the lands of South America, and in that development are themselves evolving special characters and new racial types, are those whom we loosely call Latin-Americans. Their language is of the family of the Latin tongues, and that fact fixes in the public mind the relationship of the people among European nations; but that is a very superficial estimate. If we call them Spanish-Americans and we consider what the Spaniards' origin is, we shall come nearer knowing our neighbors.

THE SPANIARD AN IRISHMAN FIRST

The ancient Spaniard was a Celt before he was conquered by Rome, and as a Celt he is represented today by the still distinct group of the Basques. The greater part of the Celtic tribes were less resistant. Five hundred years of Roman government and two hundred of domination by the Visigoths, followed by eight centuries of Moorish influence, consciously and unconsciously wrought changes in the people, evolving the special Spanish type.

All of the races which entered into that type were more or less numerous and influential in the development of the other people of Europe, except one. The Moors constitute an element of the Spanish blood which produced traits that are peculiar to the Spaniard among European peoples. In studying America we should not forget that the Moors maintained their civilization in Spain up to the date of the discovery of America and influenced the character of the Spanish conquerors. They represented that Arabic civilization which maintained learning and science during the dark ages of Europe, and their daring courage, their impetuosity, and their individualistic spirit have been transmitted to their remotest descendants.

A MANY SIDED DESCENT

A further fact relating to the origin of the Spanish-Americans, and one frequently cited by their own writers, is the mixing of the invaders and the aborigines in the colonial populations. Their writers tell us that the Indians who died under the tyranny of the Spanish masters bequeathed to those masters half-breed sons and daughters to perpetuate the race. The mestizo, or half-breed, became a universal and numerous element; the criollo, or American-born child of European parents, the local and less common factor in the colonial population.

Thus there sprang into existence the Spanish-American race, child of the Celt, the Roman, the Goth, the Moor, and the American Indian. His Spanish fathers were themselves variously characterized: the austere Basque, the arrogant Castilian, the impetuous Estremaduran, the facile and graceful Andalusian. And the Indian mothers were as unlike: the gentle Aztecs of Peru, the fierce Guarani of Paraguay, the sanguinary Puelche of the Pampas, the indomitable and independent Araucanian of Chile.

Inheritance tells. The Spanish-Indian mestizo exhibits the diversity of his ancestry. To inheritance has been added the effect of local environment and isola-

Photograph by Bailey Willis

FOREST OF BEECH AND BAMBOO IN THE ARGENTINE ANDES

While Argentina does not possess the timber resources of its neighbor, Brazil, there are many thousands of square miles of forest lands still untouched

tion. A profoundly interesting field of research in human variation awaits the student of the race in evolution.

In touching on this vast example of human evolution involving today 60,000,000 of people, we can glance only at some of the incidents related to the Argentine and Chilean nations. Both populations were well established before the close of the sixteenth century, but by very unlike elements. Valdivia and his successors, the invaders of Chile, were soldiers bent solely on conquest, such as they had taken part in in Peru, for immediate gain; the colonists who in successive expeditions founded Buenos Aires came with wives and children, with horses, mares, and implements of husbandry, to settle in the land.

THE SPIRITED PRODUCT OF A RACIAL AMALGAMATION

The warring invaders of Chile met and mingled with a warlike Indian race, the Araucanians, and their issue is without question the most independent, the boldest, the most aggressive of South American peoples.

The merchant colonists who sought the Rio de la Plata maintained to a greater degree the purity of the European blood and have constantly been reinforced by fresh immigrations from all the nations of western Europe. They are today the most enterprising, as they are the most cosmopolitan and progressive, of the Spanish-Americans.

During the first century of its existence the colony of Buenos Aires was the victim of that monopolistic policy so characteristic of the individualistic Spanish tendencies. Although destined by geographic situation and accessibility from both land and sea to be the commercial focus of the continent, the settlement was denied commercial intercourse.

During half a century the shipment of cargoes to or from Buenos Aires was absolutely prohibited under penalty of death, and during the following 50 years traffic through the port was so restricted and burdened as to amount to prohibition. Lima was the center of government and monopoly. All the produce of the continent destined to Spain was gathered there and shipped via the Isthmus of Panama. Only articles of small bulk and high value could pay the freight charges and the imposts. The heavy freight of hides, wheat, or wool could not move by that channel; and the pampas of Buenos Aires, producing nothing more valuable, shipped nothing.

No more colossal example of misgovernment, no more striking illustration of the incapacity of medieval Spain to govern the colonies her soldiers had won, is to be found even in her annals.

STATE'S RIGHTS IN THE ANTIPODES

The northern cities—Córdova, Tucumán, Mendoza, and San Juan—were established by leaders from Lima and remained attached to that transmontane capital, through which their commerce flowed. They did not sympathize with Buenos Aires in her isolation; and, later, when independence from Spain had been won, when the Argentine Republic was struggling into existence, the civil wars were fought between the conservatives of the interior and the progressives of the coast. Something of the same division exists today. Córdova and Mendoza are intensely provincial; they are for States' rights. Buenos Aires, grown immensely powerful and the seat of national government, emphasizes national control.

The isolation of Buenos Aires and the pampas influenced the evolution of the Argentine people of the country outside of the cities in a striking degree. It helped to develop the Gaucho, the Argentine plainsman, whose natural evolution in adaptation to the environment of the pampas was intensified and accentuated by separation from the ameliorating effects of intercourse and culture.

The Gaucho sprang from the Spaniard and Indian. He was a nomad. His life of frugality, activity, and hazard favored the fittest and fiercest. He knew no law save that of might. He was independent, daring, familiar with violence, and careless of life. Had he through a Spanish parent some Moorish strain, he represented in the pampas his ancestors, who had galloped over the plains of Arabia. Sarmiento describes in graphic language the wild barbaric character and life of

the Gaucho and finds a likeness to Arabs he himself had known.

THE CARRANZAS AND VILLAS OF A BYGONE GENERATION

In the wars of independence, 1810-1816, the Gaucho played an important part under General San Martin and General Belgrano; in the civil wars that followed he fought under captains of more or less authority, such as Carranza, Villa, and Orozco are today; and in the tyrant Rosas, 1830-1852, he became the dictator over the lives and fortunes of the higher classes of society.

It would be of interest in a study of Rosas to compare and contrast him with Diaz of Mexico, Guzman Blanco of Venezuela, Francia and Lopez of Paraguay, and many others of his kind, who represent the natural product of anarchy, the tyrannical "caudillo," or chief; but in Argentine and Chilean history the tyrant belongs to a vanished past.

Under the presidents who have succeeded, from Mitre, in 1862, to Saenz Pena, in 1910, the government of the Republic has been held by those who felt themselves entitled to rule by virtue of their education, intelligence, and ability.

WHEN REPUBLICAN GOVERNMENT WILL DAWN

Saenz Pena took the patriotic stand that he was president of the nation, not of a party only; he carried sound election laws and enforced them, with the result that the administration was antagonized, the congressional majority was disorganized, and the law-making body was paralyzed by party strife, which is not yet ended. Meanwhile the radical and socialist vote grows with each election, and may become a serious menace in a country where there is no considerable middle class of conservative property owners—citizens between the wealthy land-owners and the peons.

Immigration and the occupation of lands by the small farmer proprietor are means working toward the establishment of the middle class, without which so-called republican government in Argentina or elsewhere must always remain a figment of reality. The government wisely seeks to promote immigration, and there are laws designed to favor the increase of small holdings, the principal one being the inheritance law, which tends toward the division of large estates.

But immigration is not large. It is offset by emigration, amounting, in 1911, 1912, and 1913, to about 50 per cent of the immigrants. And the net annual result is an increase of only about 2 per cent in the population. Considering the great extent of territory, the small population, and the wealth of the nation, this is not a favorable showing. Spanish and Italian immigrants form about 80 per cent of the total, and entering, as many of them do, merely as laborers for the harvest season, they form an even larger proportion of the emigrants.

The attachment of these peasants to their homes in Spain and Italy is one reason for their return migration; but there is a deeper cause for emigration and for the small net increase in population by immigration. There is no room in Argentina, except in remote territories, for the man with small capital unless he is willing to remain a laborer. Liberal immigration laws do not help him. His way to independence as a farmer is barred by the great landed proprietors.

In Argentina, as in all other Spanish-American countries, the prevalence of great estates, the condition of the "latifundia," the old Roman curse, is the greatest obstacle to citizenship and good government. To pursue this topic would lead us too far afield; but it is pertinent to the contrasting of North and South America to remind ourselves that the Republic is founded in that body of intelligent and independent citizens who own their homes. They alone govern steadily.

WARDS OF THE UNITED STATES

Notes on What Our Country is Doing for Santo Domingo, Nicaragua, and Haiti

THE island of Haiti, upon which are located the Black Republic of Haiti and the Mulatto Republic of Santo Domingo, is the scene today of two of the most interesting experiments in government that may be found anywhere in the world.

After a century of effort to maintain itself as a separate, independent, sovereign nation, Santo Domingo in 1905 found itself about to fall victim to its own excesses. Revolution had followed revolution almost with clocklike regularity. There were assassinations, there were betrayals, there were conspiracies, there were wars within and wars without—war with Haiti over boundary questions and civil war over the control of the government. Debts were piled up without thought of the day of payment, or even provisions for meeting interest charges. Those who were in control of the government, whether for a day or for a year, were more concerned about the money that could be abstracted from the national treasury than they were about the preservation of the national credit.

So long and so steady was the orgy of revolution, speculation, debt-making, and interest-dodging that the nation's credit grew worse than that of its individual citizens. Finally the day of reckoning came. Foreign warships approached the ports whose harbors had given refuge to the great discoverer Columbus, and whose capital city still contains what undoubtedly are his ashes, and demanded that the claims of their subjects be satisfied—claims for money advanced, claims for interest accumulated, claims for property wantonly destroyed—and they demanded it at the point of big naval guns.

Ordinarily the Dominicans, like most of the other peoples of tropical America, dislike the Monroe Doctrine and view it as a reflection upon their strength. They think they are big enough to take care of themselves and look upon that international policy as one tending to interfere with their sovereignty.

ANY PORT IN A STORM

When Santo Domingo's treasury was empty, however, its borrowing capacity at zero, and Europe at its door threatening to take over its administration, and thus to collect its debts, no harbor ever looked more like a haven of refuge to a storm-tossed mariner than the Monroe Doctrine did to the Dominicans. In a hole from which they were powerless to extricate themselves, they were ready enough to negotiate a treaty turning over the control of the country's customs to the United States if, in return therefor, the United States would protect them from angry European creditors and rejuvenate their treasury.

And so it was that in 1905 the United States undertook to serve as treasurer of Santo Domingo and to vouch for her debts. Under the modus vivendi first, and then under the treaty, it was agreed by Santo Domingo that the United States should take over her customs-houses, put them under an American Receiver of Customs, and distribute the collections in certain proportions among the several necessities of the country. First, the cost of the receivership should be met, not to exceed 5 per cent of the collections; then $100,000 was to be paid monthly into the interest and sinking funds for the amortization of the loan which had been made under the guarantee of the United States; the remainder was to go to the Dominican Government, with the exception that when the revenues exceeded $3,000,000 a year one-half of the excess should go to the sinking fund.

There was a provision in the agreement giving the United States some control over the power of revenue legislation. It was to be consulted when changes of the tariff laws were consid-

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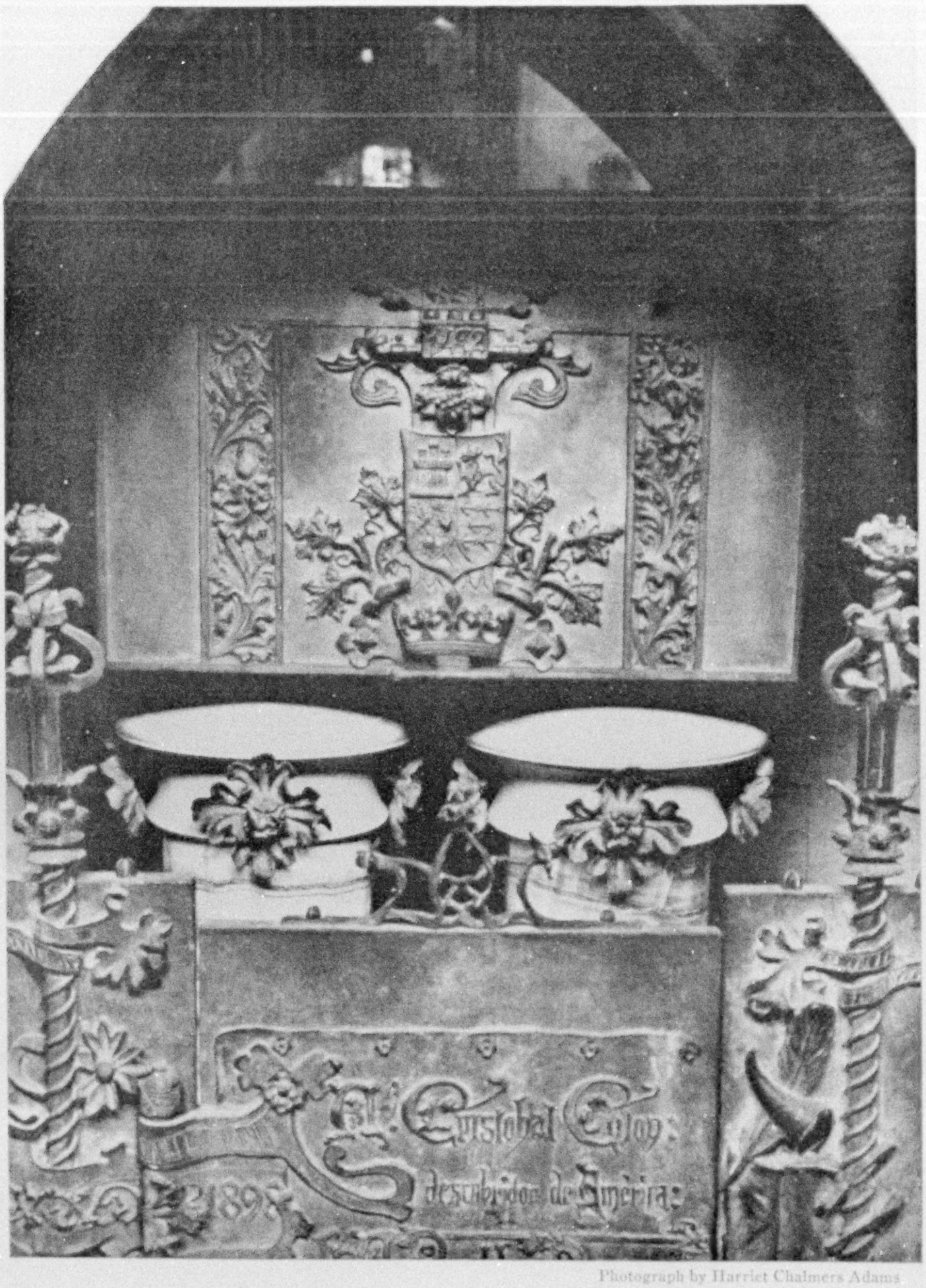
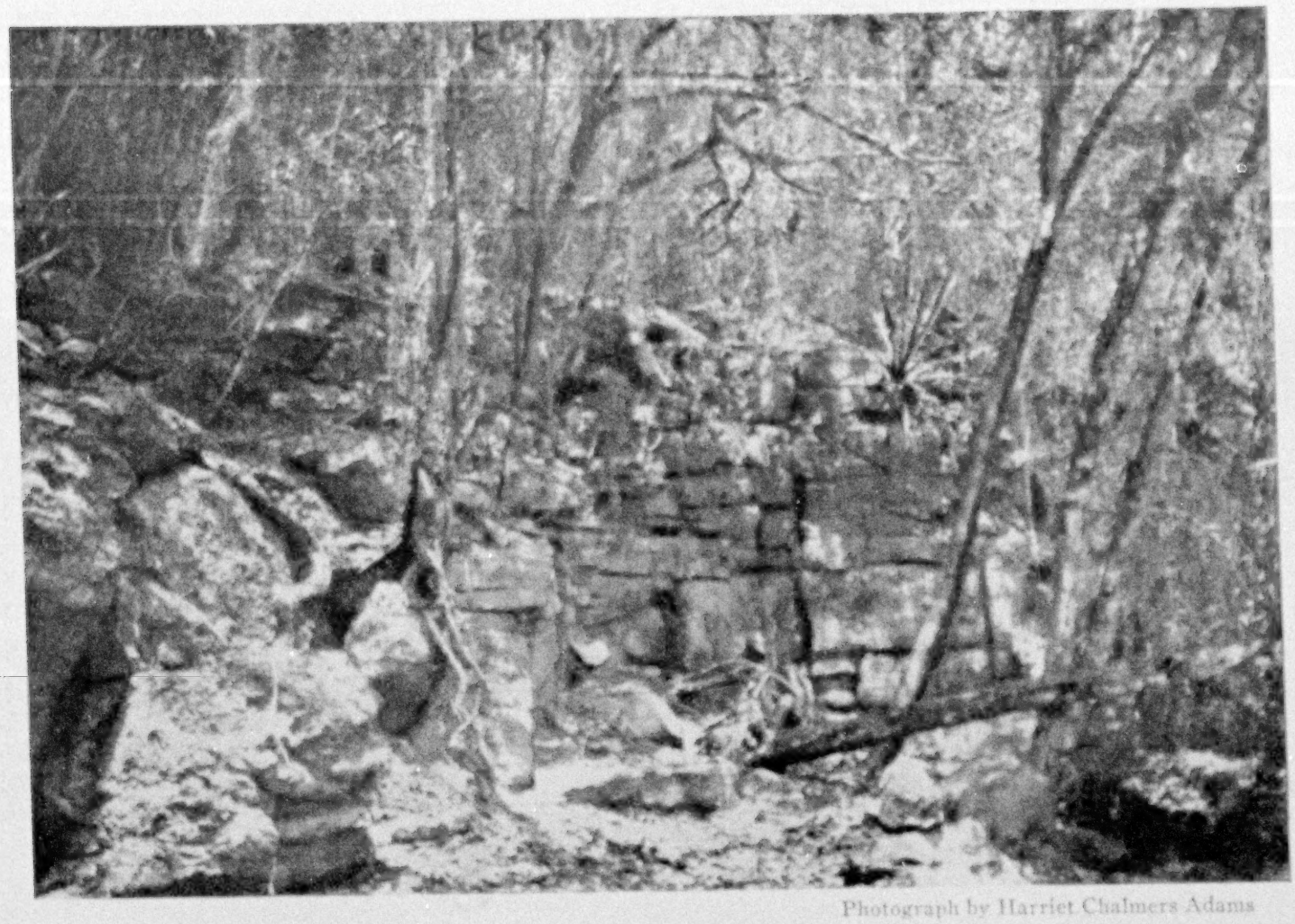


Photograph by Harriet Chalmers Adams

THE TOMB OF COLUMBUS IN THE CATHEDRAL OF SANTO DOMINGO CITY: SANTO DOMINGO

When the Spaniards undertook to remove the ashes of the great discoverer from Santo Domingo to Havana, they apparently made a mistake and took the casket containing the bones of his son, Diego, instead; for later, when the cathedral was being remodeled, a leaden casket was found, the inscriptions on and in which tend conclusively to show that it contains Christopher Columbus' ashes. The most painstaking care was taken to establish the identity of the casket found, and practically every unbiased investigator agrees with the historian of Columbus, John Boyd Thatcher, that his ashes repose in the Cathedral of Santo Domingo instead of at Sculla, Spain, as the Spaniards believe.



Photograph by Harriet Chalmers Adams

RUINS OF THE DAYS OF COLUMBUS: CAPE ISABELLA, SANTO DOMINGO

These are the ruins of the oldest surviving structure of the white man's permanent occupation of the New World

ered, and the debt could not be increased without our consent.

When the question of a revision of the tariff came up it was urged by the American authorities that the duties should be laid on luxuries rather than upon necessities, upon the things of the rich rather than upon those of the poor. It was the other way around under the old régime. There was a high duty on cotton and a low one on silks, a heavy impost on beer and a light one on champagne. Rice bore a heavy duty and sardines in oil next to none.

A NEW TARIFF POLICY

Under the revision supervised by the United States all this was changed. The tariff, as a whole, was cut down, and necessities were admitted at low rates and luxuries at high ones. The general reduction was 50 per cent on export taxes and 14 per cent on import duties.

And yet, in spite of this great reduction, in spite of payments of $1,200,000 a year on the debt, there was still left a greater net income for the use of the government than it had ever had before.

AN ASTOUNDING PERFORMANCE!

Not only that, but, under the law which entitled him to 5 per cent for the expense of collections, the receiver was able to reduce the costs to such a point that in seven years he turned into the Dominican treasury $200,000. It was astounding to the Dominicans that any one should turn into the treasury the savings of an economical administration.

For a long time it was thought that, deprived of the opportunity of securing customs-house revenues through the seizure of ports, revolutions could not support themselves. But after six or seven years of peace, during which unprecedented strides of progress were made, trouble broke out again, and during 1914 and 1915 it became so serious that the United States was forced to intervene in behalf of peace and to demand, with marines on shore and naval guns trained and pointed on the ports, that the country re-

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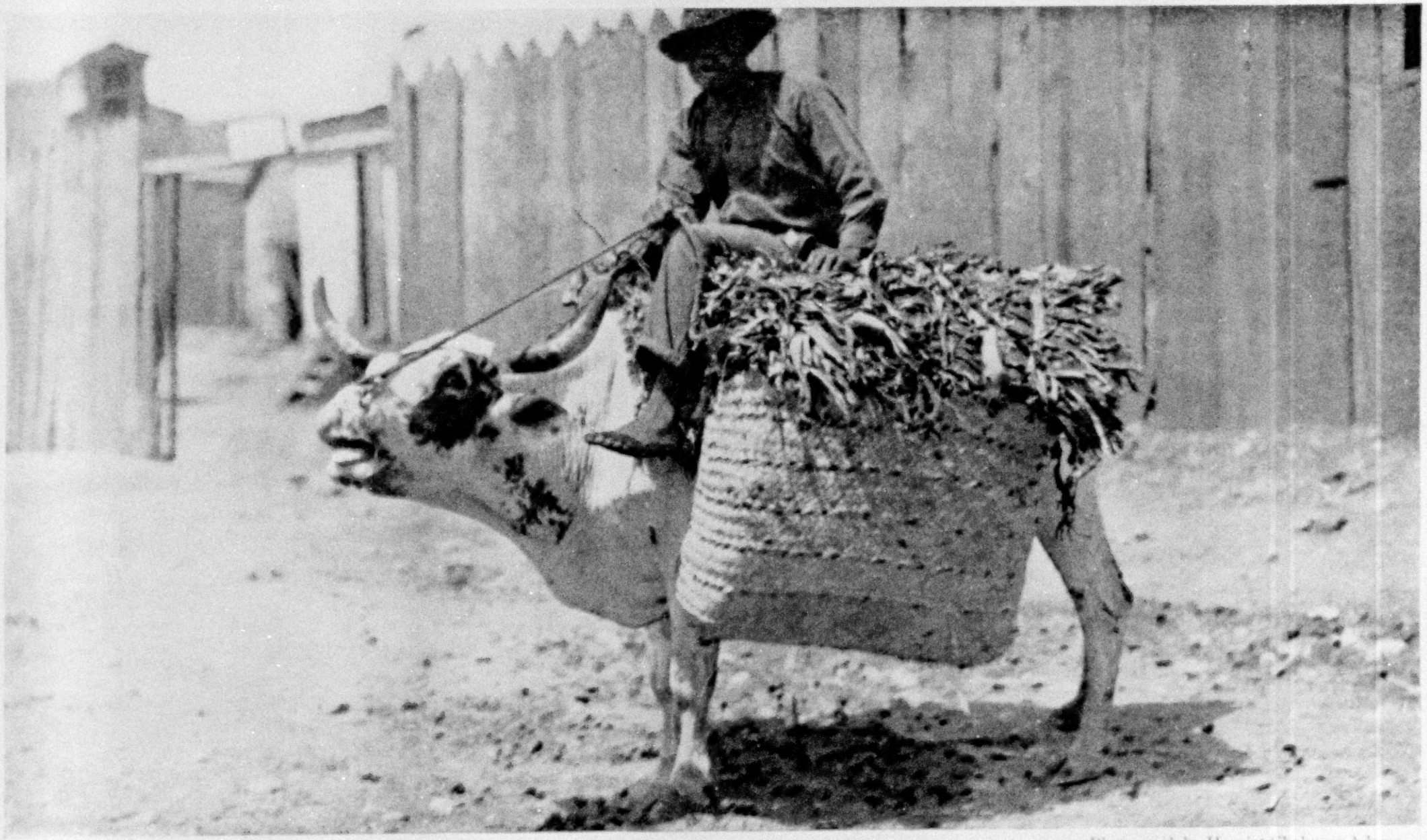
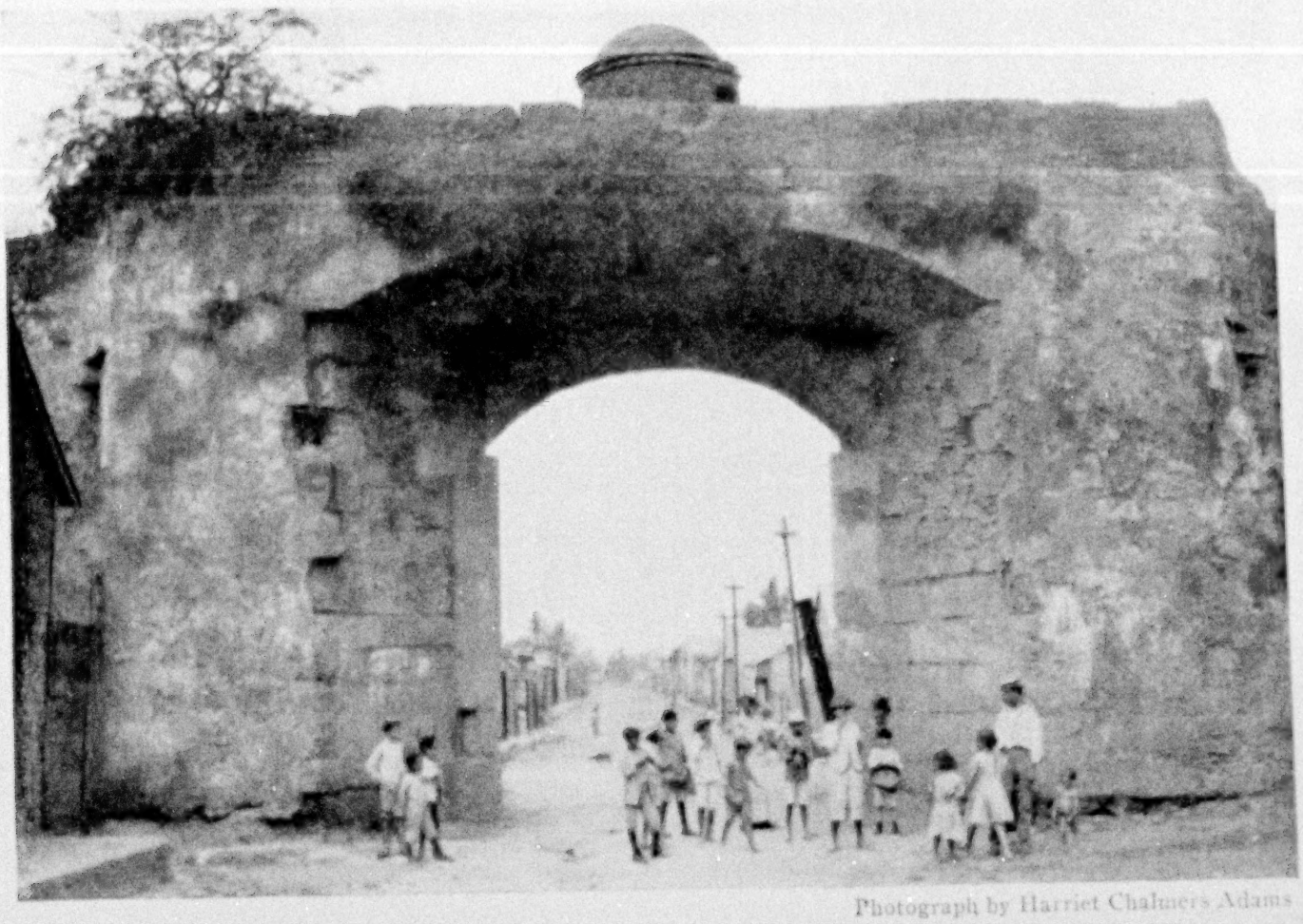


Photograph by Harriet Chalmers Adams

CARRYING CEROONS OF TOBACCO TO TOWN: SANTO DOMINGO

Santo Domingo is naturally one of the richest countries in the world. Its sugar lands rival those of eastern Cuba, and its tobacco lands produce a leaf almost as fragrant as does the wonderful soil of Cuba's western provinces.



Photograph by Harriet Chalmers Adams

GATEWAY TO THE CITY OF SANTO DOMINGO

Near the river gate is a sturdy ruin, made up of two square towers joined by a central block. Black and roofless, in spite of the squalor of its surroundings, it still proclaims the time when it was "the magnifical and princelyke house" of Christopher Columbus.

turn to a state of quiet. And so today the Dominicans, realizing that the Monroe Doctrine is determined to afford them protection from their own excesses, their own bitter passions and blind purposes, have accepted the inevitable and have secured the blessings of peace from without when they could not attain that end themselves. It is a reluctant acquiescence they yield, but a wholesome one, none the less.

It has not been without effort or without expense, nor yet without the actual sacrifice of blood and life that our country has stepped in to play the rôle of Good Samaritan to the peoples of Santo Domingo, Haiti, and Nicaragua, who had lost the blessings of peace and were unable to regain them. In Haiti alone we lost one officer and six marines and had a number wounded. How much in money it has cost has not been ascertained officially, but the usual estimate is that it costs $1,000 a year to support an American soldier in the tropics, and thousands of them have been sent down there. Of course, the bulk of this would have been spent whether such help was rendered or not, for the Marine Corps is maintained even though it sees no active service.

OUR COUNTRY'S COLONIAL ACHIEVEMENTS

But out of it is growing results of which a nation which covets no territory, which seeks only its own security and the welfare of its unfortunate neighbors, may well be proud.

In Porto Rico we have reduced the death rate from 45 per 1,000 to 19 per 1,000, and a beginning along the same lines is being made in these new fields of American altruistic endeavor. In Porto Rico wages have increased from 16 cents to 75 cents, and stable conditions show encouraging results in the same direction in our new ward lands. In Porto Rico the school attendance jumped from 20 per cent to more than 85, and these new wards are trying to follow in Porto Rico's path.

Wherever America has gone, whether to Cuba, whether to Panama, whether to

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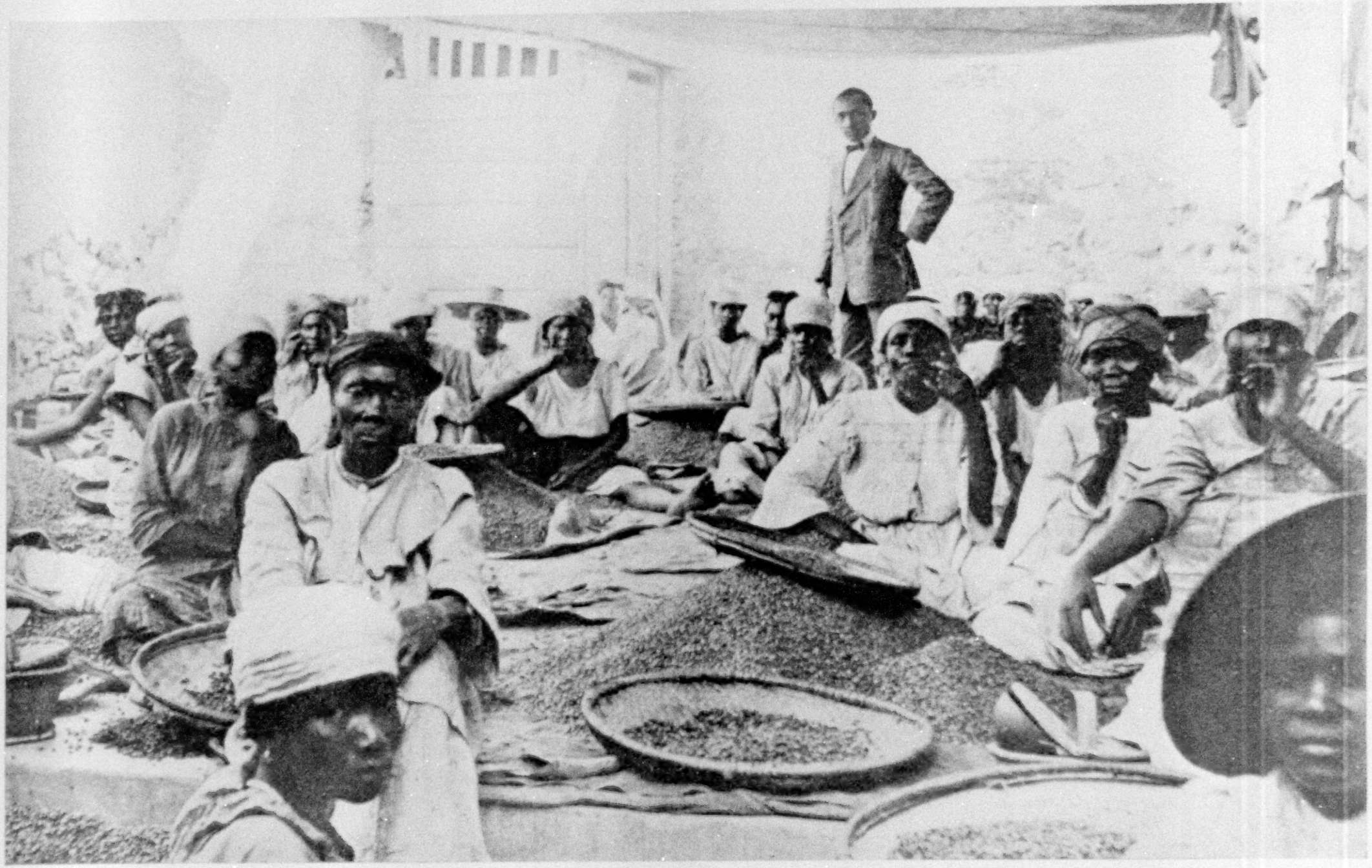

SORTING COFFEE BY HAND: HAITI

When the French were driven from the Island of Haiti it was one of the richest coffee-growing regions in the world. Little has been done in the development of this industry during the century that has followed, and while Haiti still produces enormous quantities of the aromatic berry, it is due to the natural exuberance of the soil and not to the care taken of the trees. Indeed, it is said that most of the coffee trees now at a producing age in Haiti are of volunteer growth.

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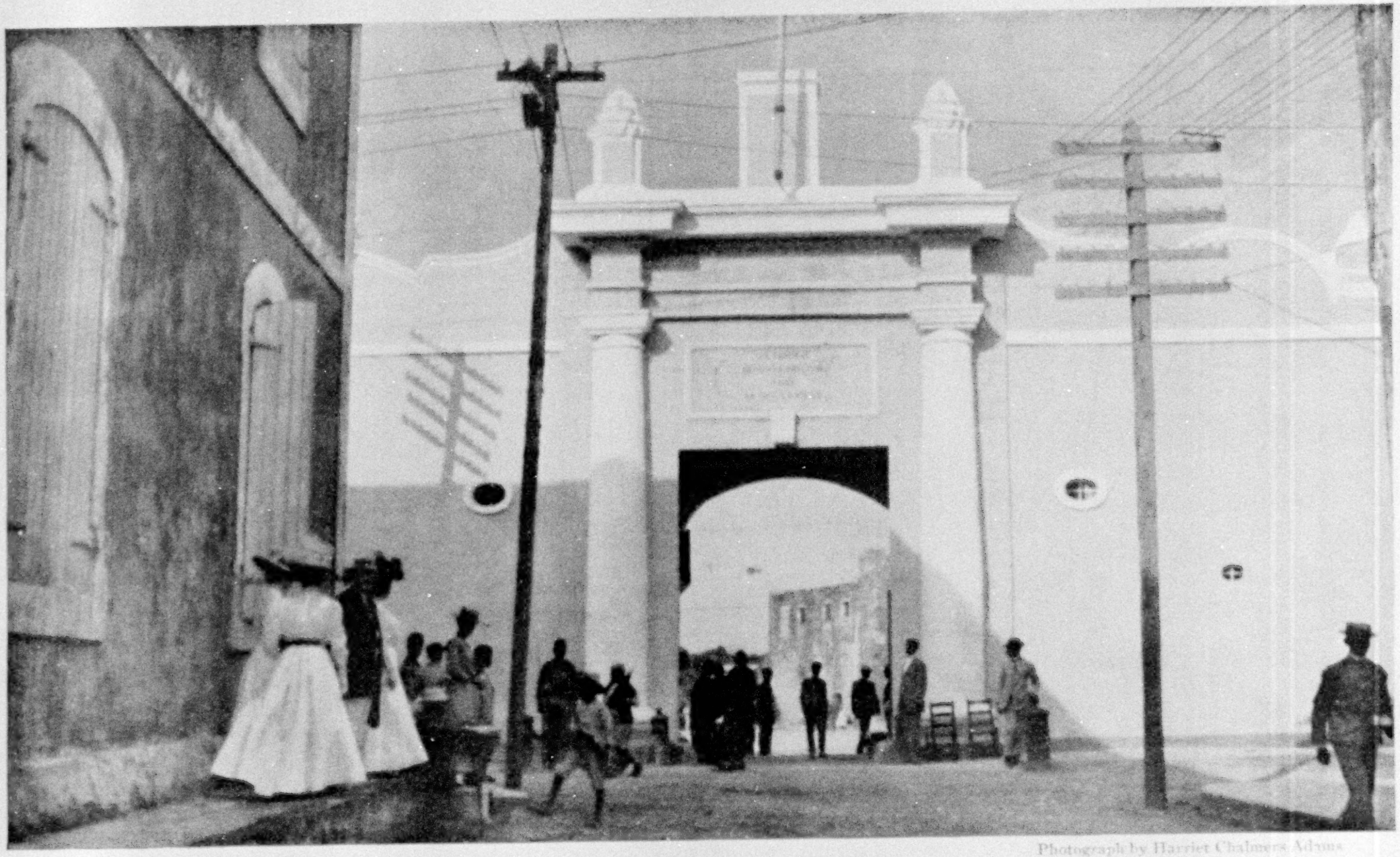
A STREET SCENE IN PORT AU PRINCE, HAITI

American naval officers whose duties have carried them to the ends of the earth, and to the most insanitary of the world's cities, have declared that the stench of Port au Prince offers more offense to the sense of smell than the odors of any other spot they have visited. Open sewers, decaying fish, dead animals, and whatnot made the City Dreadful before the Americans applied the same methods they used in the Havana-Panama clean-up.



Photograph by Harriet Chalmers Adams

GATEWAY OF "HOMENAJE," THE OLDEST FORT IN THE NEW WORLD: SANTO DOMINGO CITY

It is a fascinating experience to visit Santo Domingo and wander amid the ruins of the ancient city—from the old fortifications to the first stone church built in the New World and to the tomb of the Great Discoverer. Nowhere else in this hemisphere are there scenes fraught with more historical significance to Americans than here where Columbus had his hour of triumph and his hour of sorrow, and where, when he had embarked upon the Great Voyage from which he would never return to endure the fickle favor of petty princes, his ashes finally found repose.

Photograph by Harriet Chalmers Adams

ON THEIR WAY FROM SCHOOL: SANTO DOMINGO CITY, SANTO DOMINGO

The inhabitants of Santo Domingo City well may be a proud people. For, in the words of Ober: "What other city of America can boast as its one-time citizens a great discoverer like Columbus, a fifteenth century humanitarian like Las Casas, a monster of depravity like Ovando, and a quartette of conquerors like Velasquez, who subjugated Cuba; Cortez, who conquered Mexico; Balboa, the explorer of Darien, discoverer of the Pacific, and Pizarro, who stole the treasures of Peru?"

Santo Domingo, Porto Rico, Nicaragua, the Philippines, or Haiti, the welfare of the people has been her first concern; and while all colonial history shows that the tares of evil are never absent from the wheat of good, our nation's record of help given where most needed is one that well may challenge our admiration and quicken our patriotism.

The success in Santo Domingan customs administration and debt amortization led to another experiment along the same line a few years later. Nicaragua became revolution-torn, resulting in the overthrow of Zelaya and the conversion of the country from an unspeakable despotism into one of ruinous anarchy. Rival factions issued fiat money as freely as tap water flows from a spigot. The treasury was bankrupt, interest was in default, foreign creditors were threatening through their governments to collect their debts with gunboats and cruisers, and there was not enough money to be had by the party in power even to pay salaries, much less soldiers' wages.

HELPING NICARAGUA ESCAPE THE THROES OF CHRONIC REVOLUTION

In its insecure tenure under these conditions, the party in power was only too willing to save itself, and incidentally the country, by appealing to the United States and by offering to make itself an instrumentality in American hands for the rejuvenation of the nation. The United States accepted the opportunity, and a treaty was entered into giving this country control of Nicaraguan finances and the right to intervene in the interest

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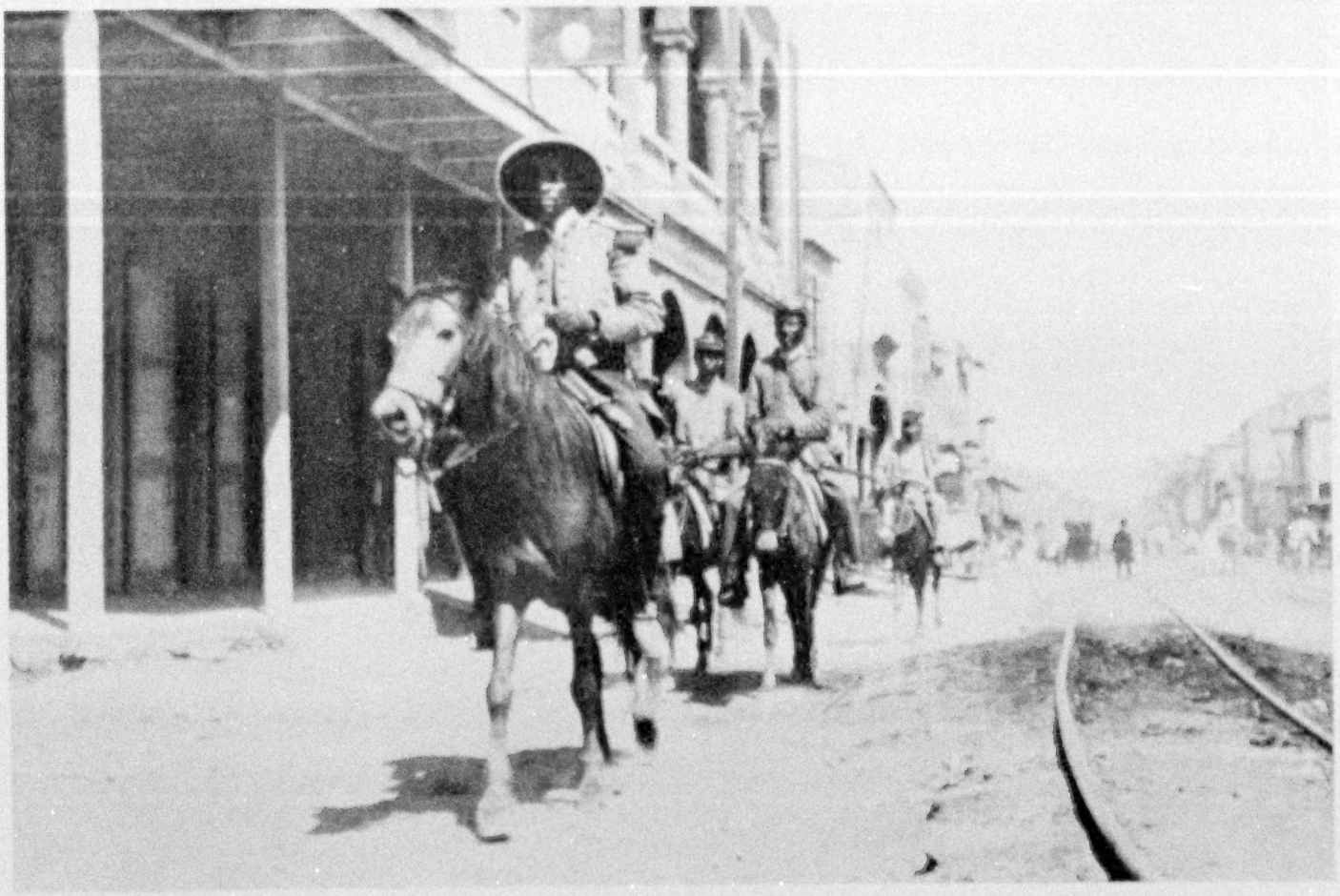
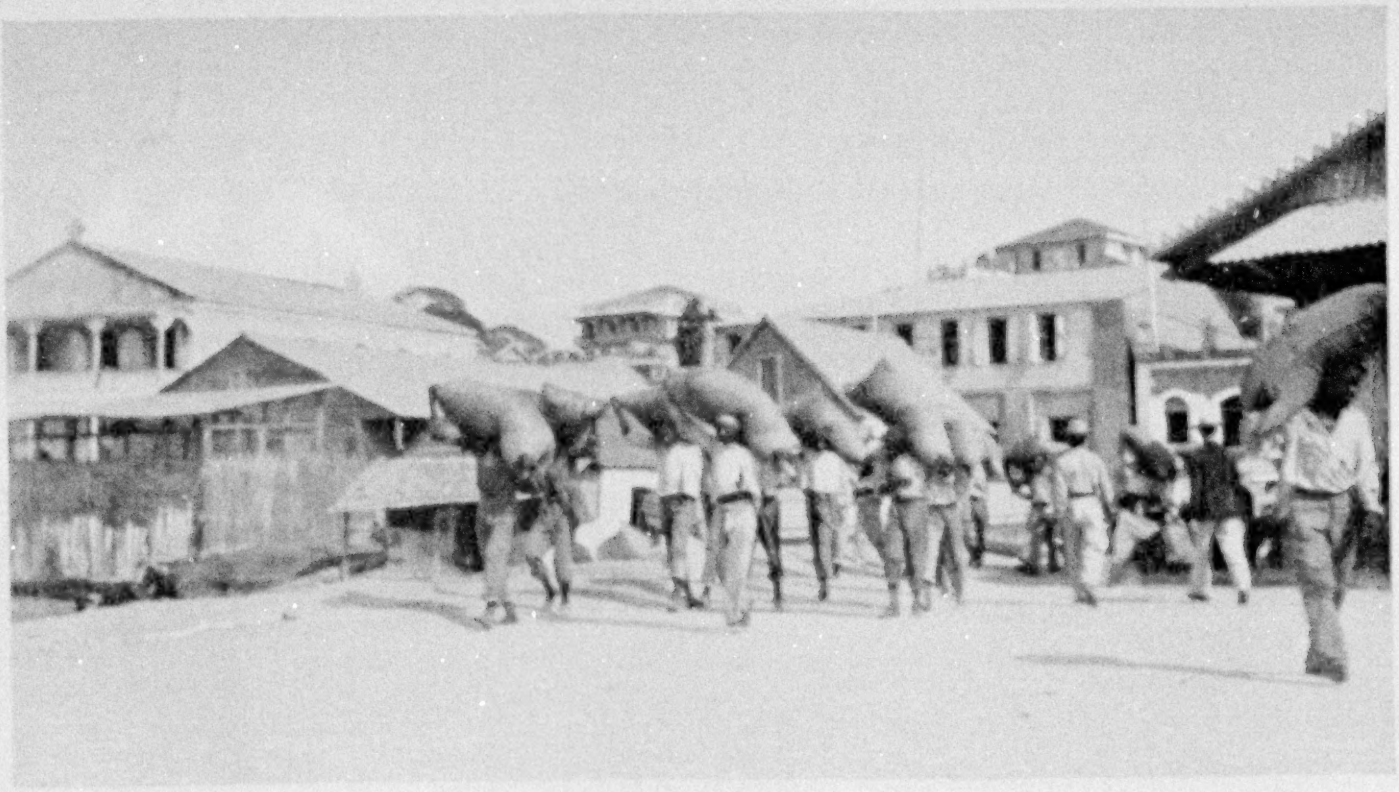


OFFICERS OF THE HAITIAN ARMY ON THE STREETS OF PORT AU PRINCE, HAITI

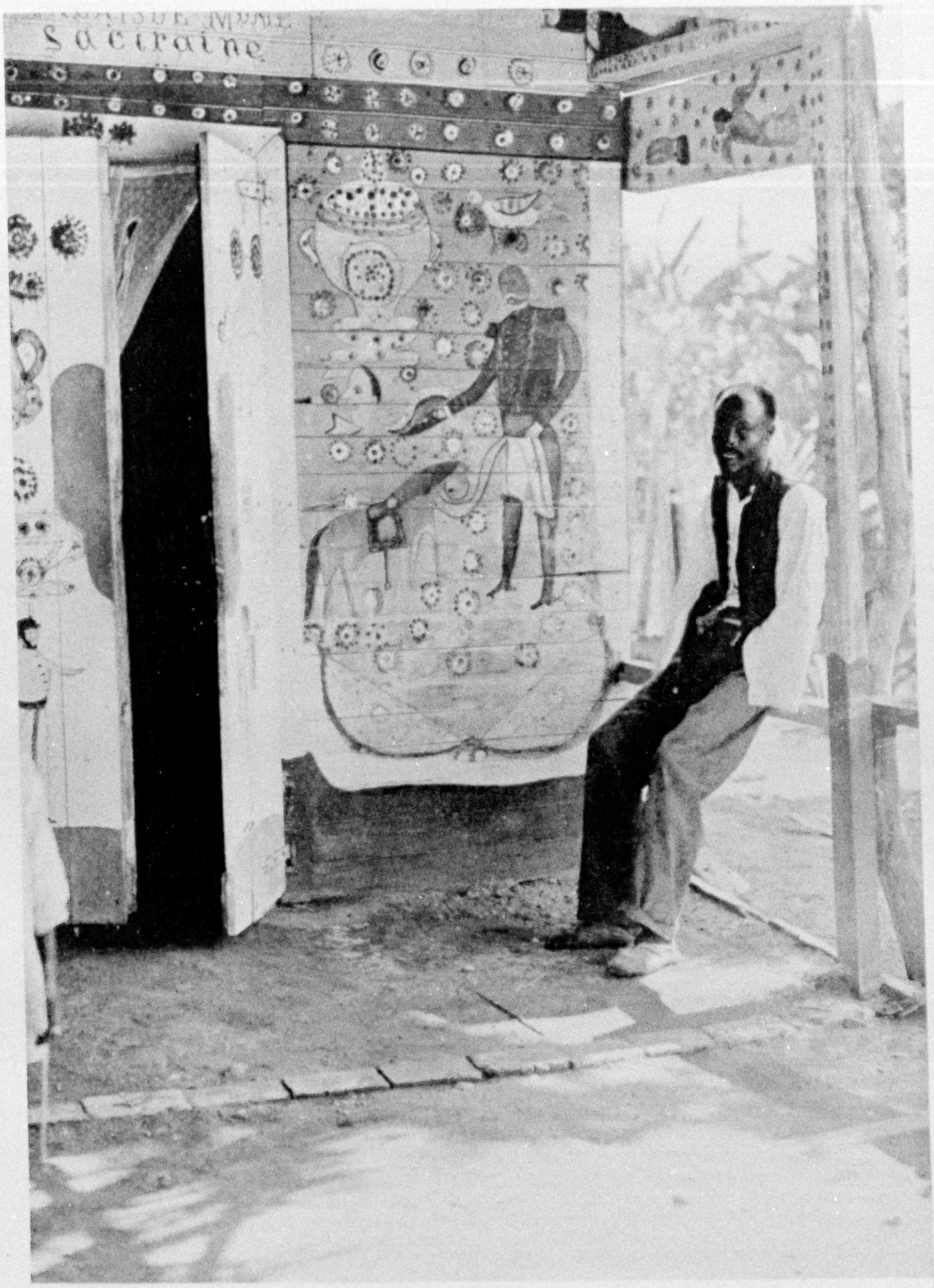
The army officers of Haiti were as fond of gold lace as a mountain girl of bright colors. Small wonder, then, that the regalia of a field marshal was everywhere in evidence. Times have changed, however, and now the American marine in quiet khaki takes the place of the Haitian fire-eater and his resplendent costumes.



Photographs by Mrs. C. R. Miller

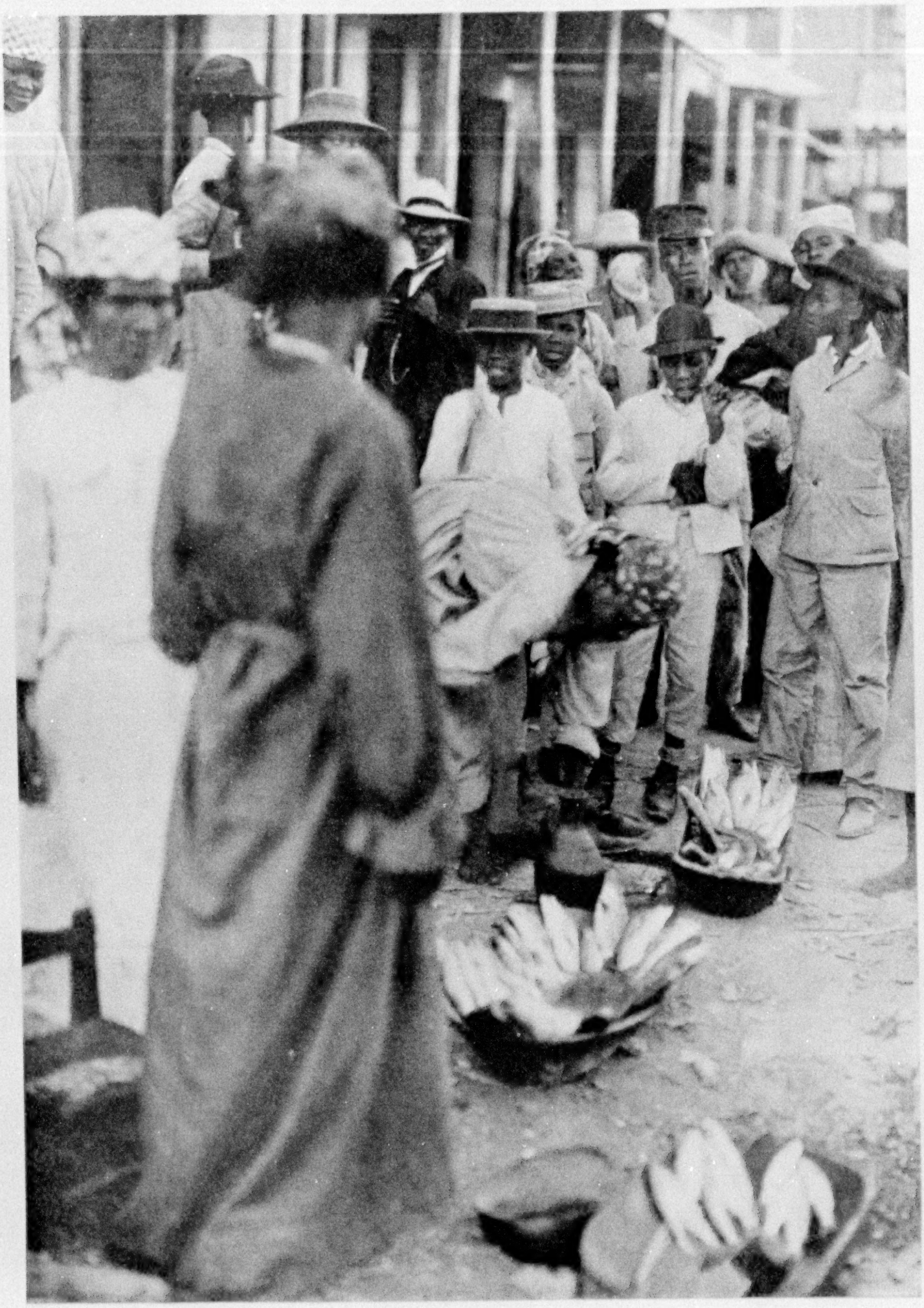
HAITIAN SOLDIERS CARRYING COFFEE TO THE WHARF IN ORDER TO GET SOMETHING TO EAT

The pay of a Haitian soldier was small at best, nothing at worst, and at all times insufficient to keep the warrior fed decently. The days for loading coffee on departing ships were great days in Haiti. They were days when the army got a square meal.



THE ENTRANCE TO A SO-CALLED VAUDOUX TEMPLE; HAITI

Every authority on Haiti agrees that vaudoux, or voodoo, worship exists there, and that it is probably a survival of African fetichism. It is agreed by all authorities that now and then in the frenzy of the snake dances the worshipers refuse to be content with anything less than a sacrifice of the "goat without horns"—a living child. When one of the recent presidents of the Republic was assassinated, he carried the emblems of vaudouxism next to his heart, showing that the cult has existed even in the highest places.



THE FISH MARKET: PORT AU PRINCE, HAITI

Situated in a region famous for its fine fish, among them the delectable and plentiful "red snapper," the Haitians eat quantities of salt-cod from Massachusetts waters; and the quality of this imported staple is such as would not find favor in American markets.

Photograph by Harriet Chalmers Adams

STREET SCENE: SANTO DOMINGO CITY, THE CAPITAL

"Still, in spite of it all, Santo Domingo remains one of the most fascinating and inspiring cities in these waters. . . . To walk through its highways and its alleys is to turn over the pages of an old missal illumined with faded gilt and precious colors, the incense-perfumed leaves of which are patched with shreds of gutter-journals and interbound with gaudy prints, ballad sheets, and play bills."—TREVES.

of peace during the life of the compact. Controlling the finances after the Santo Domingan plan, the United States arranged a new loan, most of it to be spent in refunding the debts of Nicaragua and the remainder in making certain internal improvements necessary to the progress of the country.

Here, again, the plan worked beautifully as long as hydra-headed revolution remained under cover. Trouble broke out again, however, and only the presence of American marines has served to keep the peace. The "outs" are bitterly against the rôle being played by the United States; but Nicaragua is being rejuvenated, in spite of every handicap that their state of mind entails.

This rejuvenation consists in the placing of the country on a stable financial basis, both with respect to foreign credit and internal investments, the lowering of the death rate through sanitary work, the extension of education through the opening of new schools, and the development of the country through financial arrangements for the construction of a railroad from the west to the east coast, the dredging of the rivers, etc.

That this all amounts to armed intervention no one can deny. But both in Santo Domingo and Nicaragua the step was taken because necessity impelled it. Unless the United States was to be forced to abandon the Monroe Doctrine, it had either to deprive other countries of their remedies or else intervene itself.

But it was and is an intervention only to discharge our international duty to the countries of Europe under the Monroe Doctrine and to rescue the countries in which we intervened from this hopeless morass of perpetual bloodshed and their people from the quicksands of unending riot.

If conditions were bad in Santo Domingo when the United States undertook to help the country back to peace and prosperity, they were worse in Nicaragua when we assumed the rôle of guardian. But even in Nicaragua they were mild indeed as compared with those obtaining in Haiti when our country finally stepped in there.

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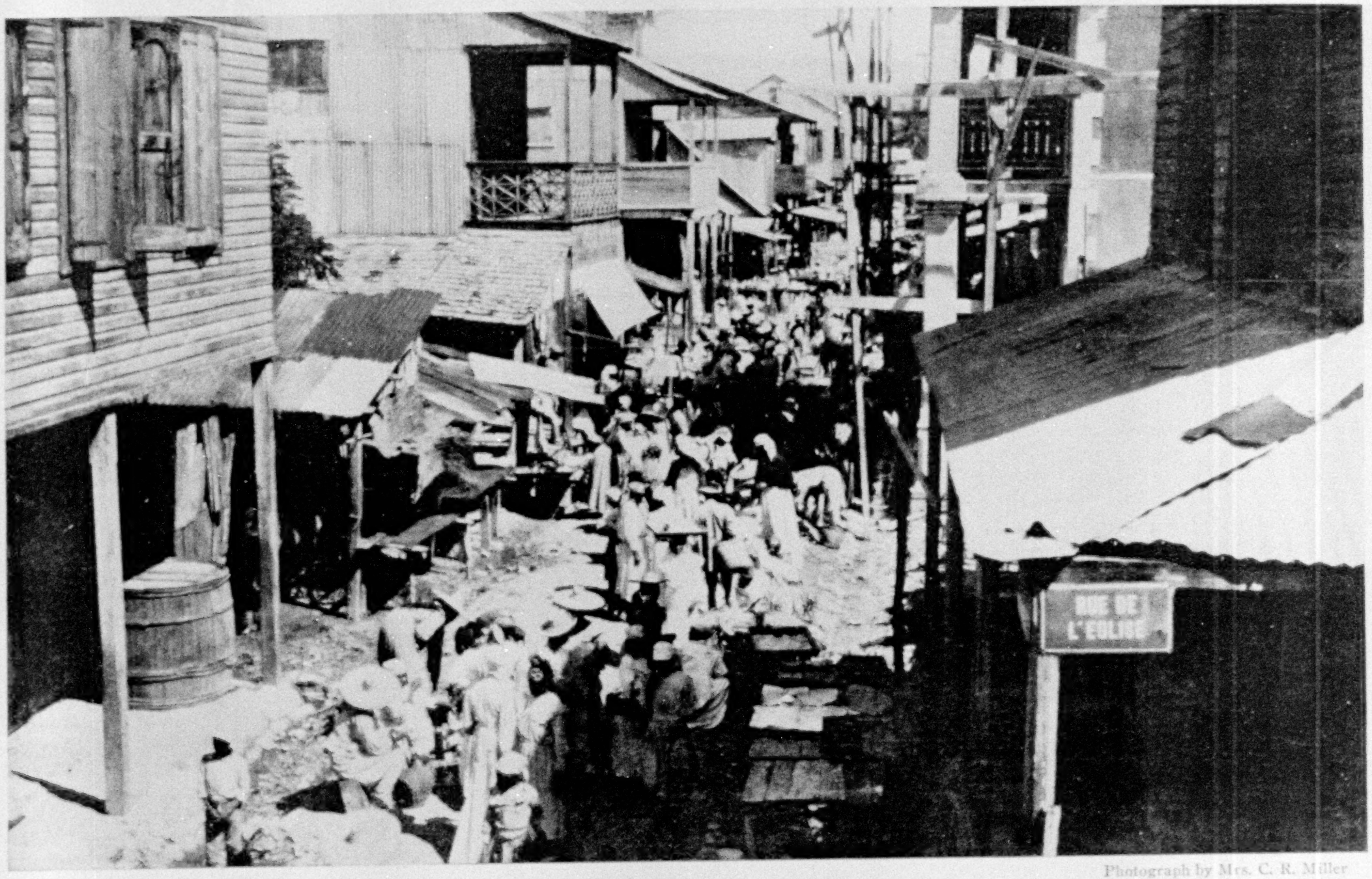

Photograph by Mrs. C. R. Miller

A STREET IN JACMEL, HAITI

If the American protectorate over Haiti does nothing else but clean up its cities, an infinite service to an indifferent people will have been rendered

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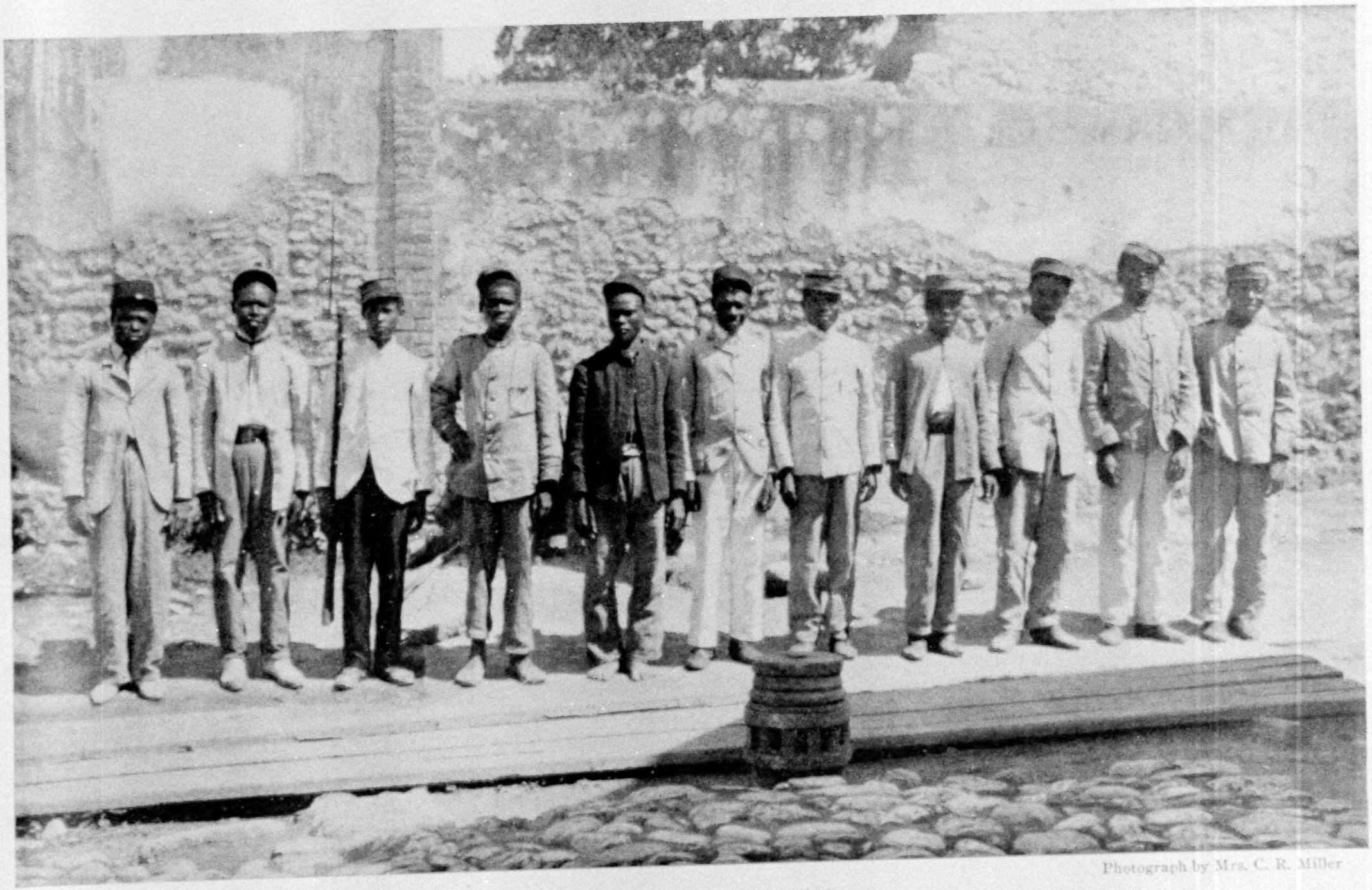


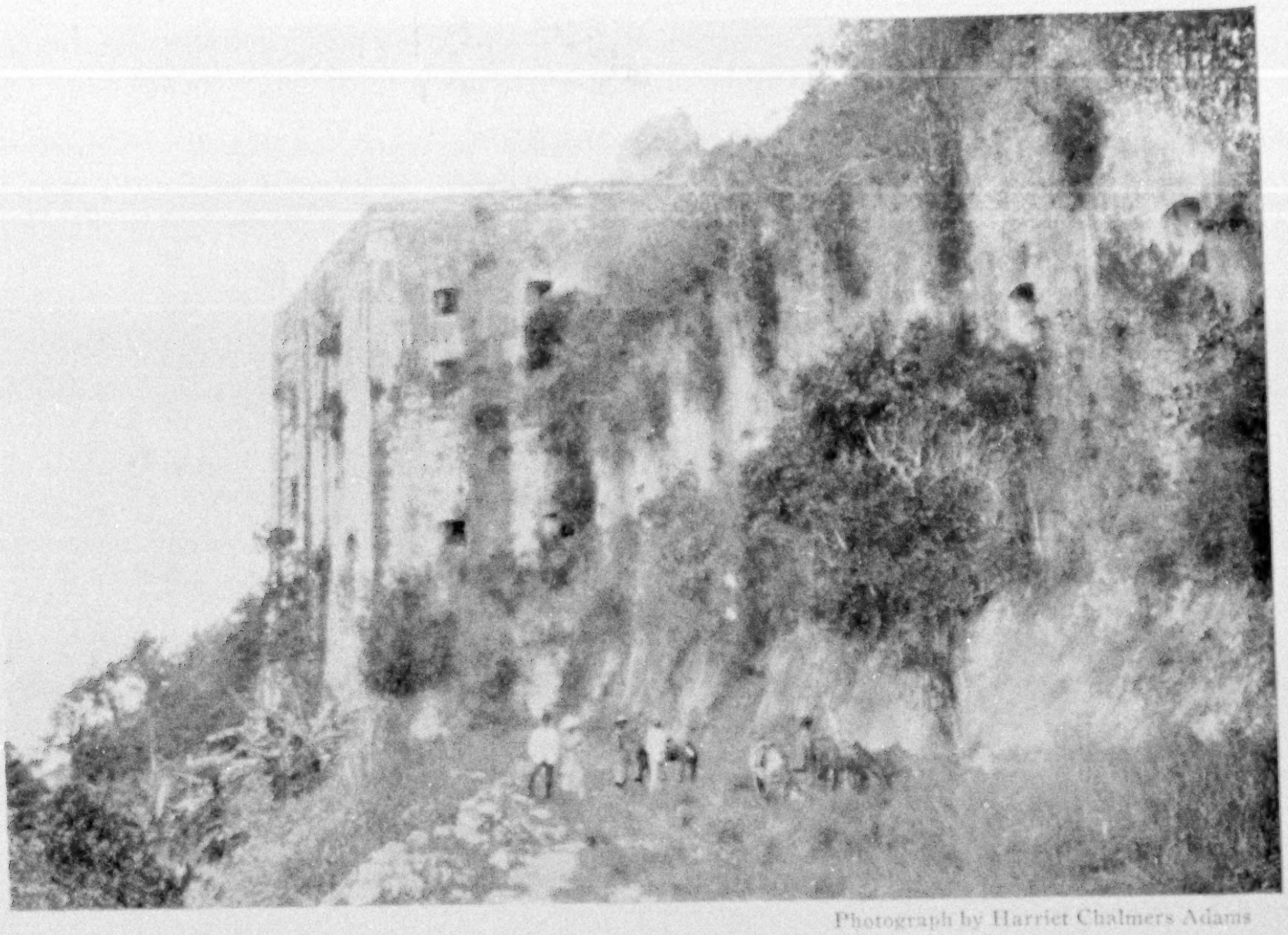
Photograph by Mrs. C. R. Miller

TYPICAL HAITIAN SOLDIERS

Feeding the Haitian armies in the days before the American "Big Brother" movement was not a difficult job. Garrison rations consisted of a sugar-cane stalk two or three feet long, and whatever else the soldier could beg, borrow, or steal!

AMONG THE MOUNTAINS OF THE BLACK REPUBLIC

While most of the territory of Haiti is covered with a jungle growth of bewildering density, there are many mountain sides which are brown and bare, the result of centuries of erosion.



Photograph by Harriet Chalmers Adams

THE STRONGHOLD OF CHRISTOPHE

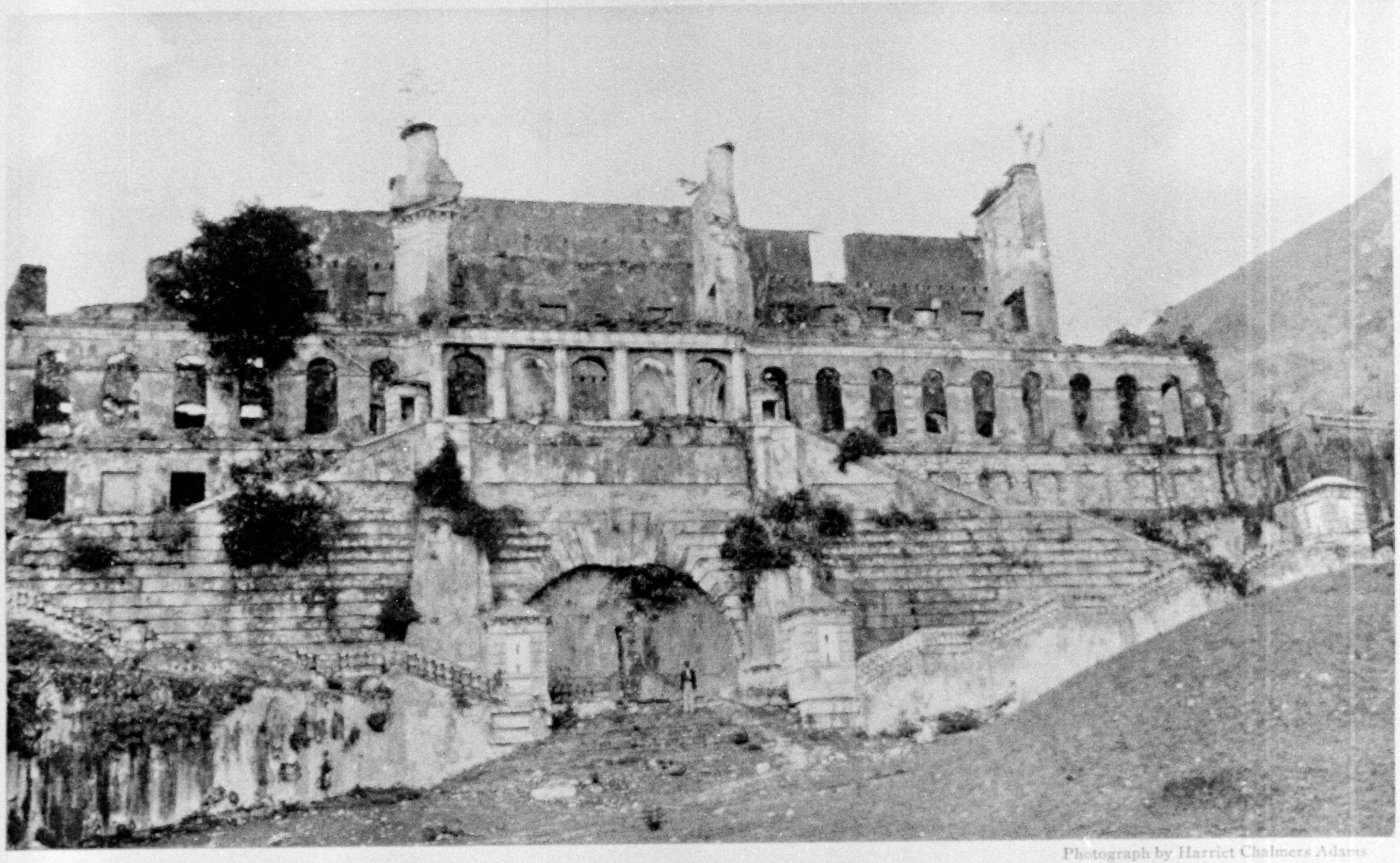
"Two hours further back in the hills stands the stupendous castle erected by the King as a retreat when the French should come to avenge his murdered masters. They never came, having had enough of Haiti; but there Christophe immured himself behind walls twenty feet in thickness and a hundred feet in height, in the long galleries and on the parapets mounting more than three hundred cannon, most of which may be seen today. Here at last died the great black king, self-slaughtered by a silver bullet driven into his brain."—Ober.

CONDITIONS UNBELIEVABLY BAD

Conditions always have been unbelievably bad in that Republic. To begin with, it is a place where black rules white, where the Caucasian is referred to as the "blanc," just as we refer to the "negro." Froude, whose verdict agrees with those of Sir Frederick Treves, who lived in the island; Sir Spencer St. John, who was for 15 years British Minister there, and F. A. Ober, who spent the best part of two decades studying the islands of the Caribbean, says of the Haitians: "They speak French still; they are nominally Catholics still; and the tags and rags of the gold lace of French civilization continue to cling about their institutions. But in the heart of them has revived the old idolatry of the Gold Coast, and in the villages of the interior, where they are out of sight and can follow their instincts, they sacrifice children in the serpent's honor after the manner of their forefathers."

Sir Spencer St. John adds to this the statement: "I have traveled in almost every quarter of the globe, and I may say that, taken as a whole, there is no finer island than that of Santo Domingo—Haiti. No country possesses greater capabilities, or a better geographical position, more variety of soil, of climate, and of production, with magnificent scenery of every description, and hillsides where the pleasantest of health resorts might be established, and yet it is now the country to be most avoided, ruined as it is by a succession of self-seeking politicians, without honesty or patriotism, content to let the people sink to the condition of an African tribe, that their own selfish passions may be gratified."

F. A. Ober, commenting upon the story of the country written by Sir Spencer,



Photograph by Harriet Chalmers Adams

THE PALACE OF SANS SOUCI, BUILT BY CHRISTOPHE

This remarkable edifice is situated in the hills above the level vale Milot, with a background of forest and a foreground sprinkled with palms and the huts of simple cultivators. Dilapidated ruins and a tangle of tropical trees are the rueful remnants of the glory that was once the Palace Without Care and the gardens of delight of the King of Slaves—Christophe.

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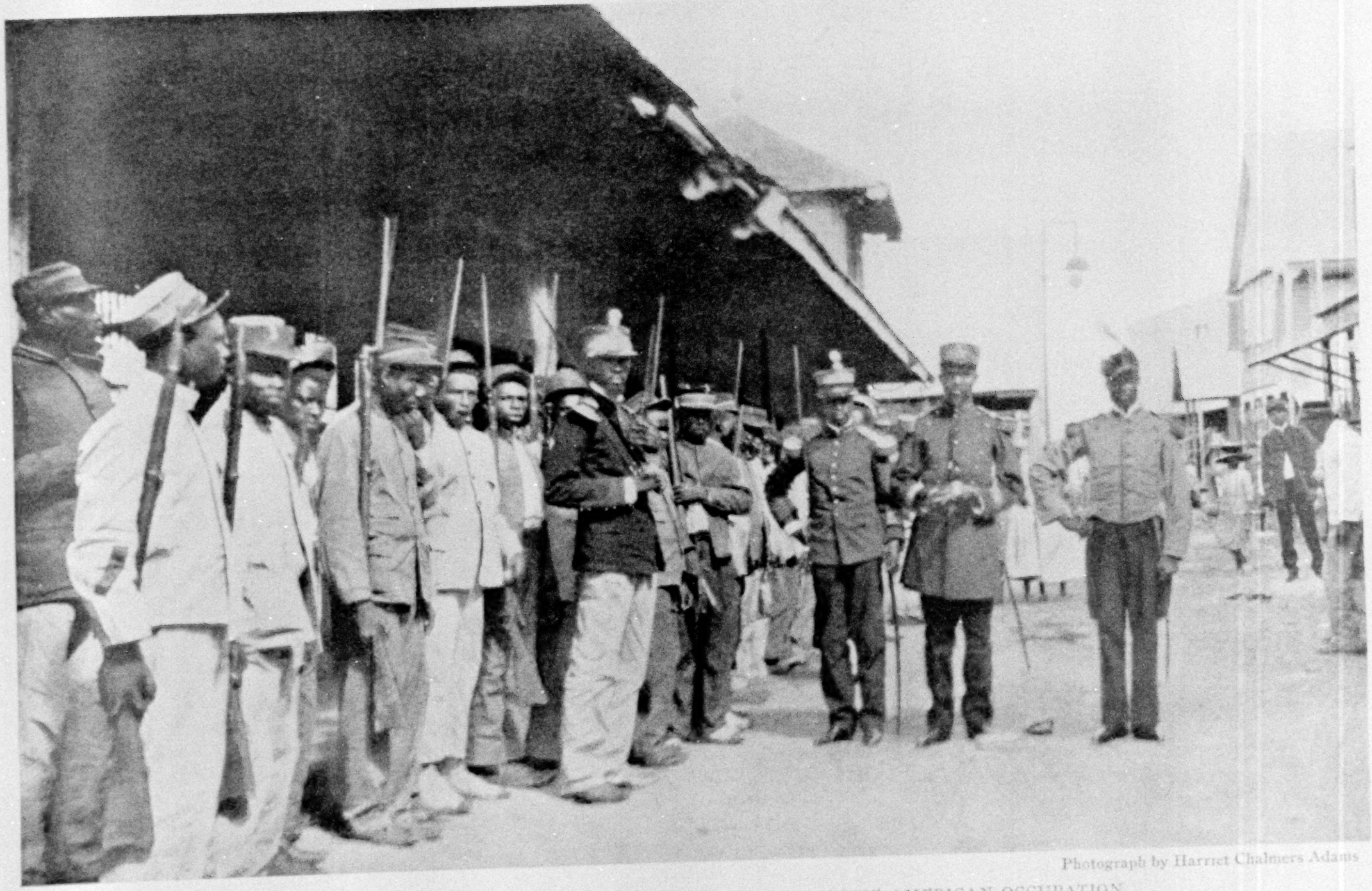

Photograph by Harriet Chalmers Adams

SOME OF THE GENERALS IN THE HAITIAN ARMY BEFORE THE AMERICAN OCCUPATION

When one of our diplomatic representatives visited Haiti a few years ago, President Laconte told him he was reducing the size of his army, and that the generals mustered out of service were put to breaking rock on the street. At one time there were more officers than men in the Haitian army, according to apparently authentic statements.

A HAITIAN COUNTRY HOME OF THE BETTER CLASS

The Haitians live in a land of almost unexampled fertility. Drought and frost are both unknown. The soil is wonderfully fertile and nothing but sheer lack of initiative and industry keeps them from becoming rich.

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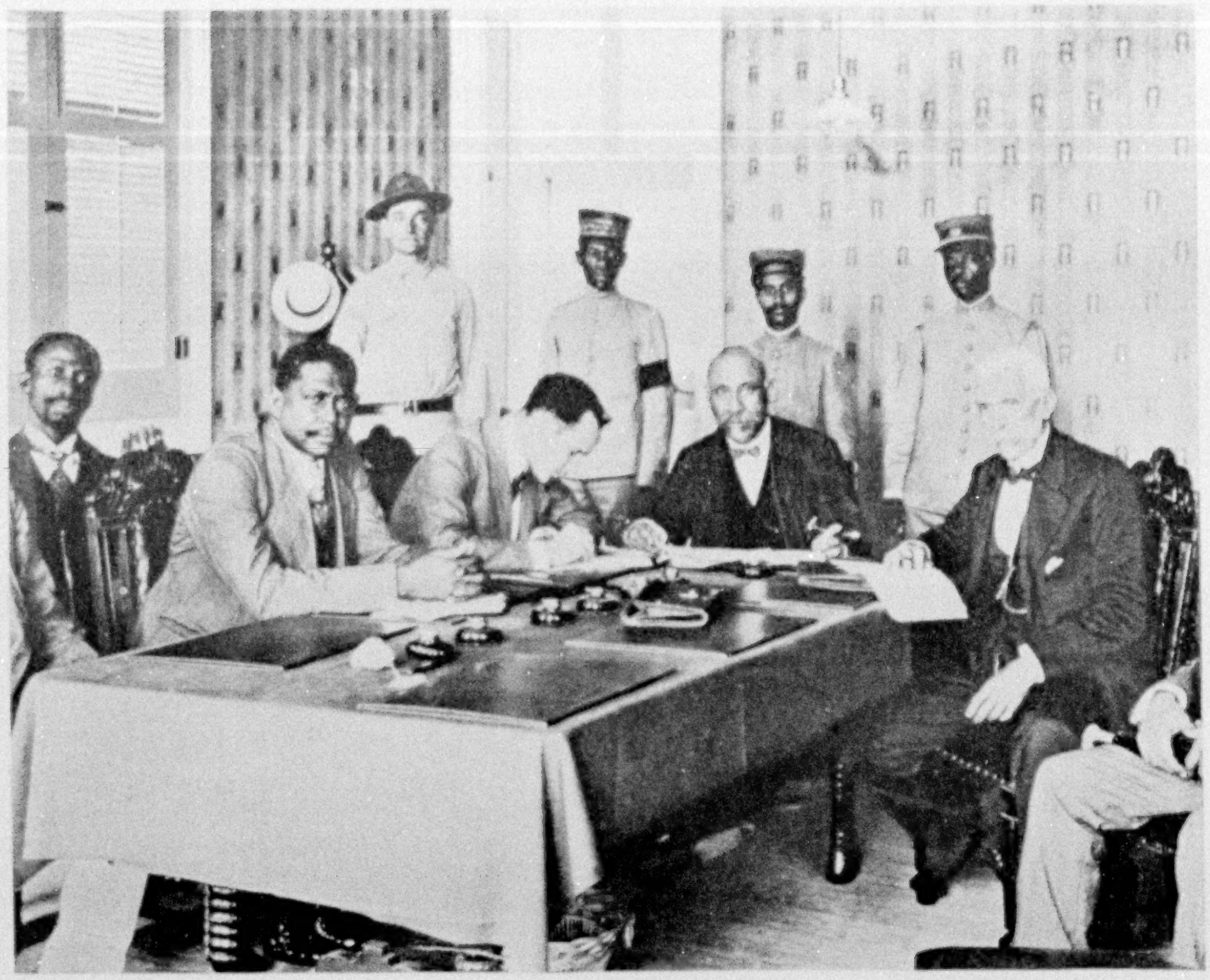
Photograph by Mrs. C. R. Miller

A TYPICAL COUNTRY ROAD IN HAITI

It is over such roads as these that Haiti sends its products to market. Compared with the roads of Jamaica, Cuba, or Porto Rico, they furnish eloquent testimony as to the economic backwardness of this land of potential riches.



THE PRESIDENT AND STAFF, PORT AU PRINCE, HAITI

The marine in the background tells the story of the presence of the American force in Haiti. The Haitian soldiers have been organized into a constabulary under the direction of American marines, and many of the latter have been promoted from the ranks and are now officers.

tells us "he scathingly arraigns the Haitians and gives details of the revolting practices of the Vaudoux and the cannibals of the country. There is too deep a belief in the almost preternatural power of the *papa-lois* and *maman-lois* (high priest and priestess of the Vaudoux), and the dread of the terrible *loup-garou*—the human hyena that kidnaps children, buries them alive, and then resurrects them for the sacrifices—is too pervasive and real to permit of denial by those who have to live in Haiti and endure the evils they cannot remedy."*

It was Dessalines who led the forces which defeated the French, massacred their women and children, and set up an independent government From that time, 1804, to the present they have had 28 rulers, including a king and an emperor. Of these only 4 completed their terms of office, 2 died in power, 5 were assassinated, 10 were exiled, 1 committed suicide, and 1 abdicated under compulsion.

Of Christophe, the second ruler, Sir Frederick Treves gives us this glimpse: "To Dessalines succeeded Christophe, one of the most ludicrous figures in modern history. He was a mulatto slave, who took upon himself the title of Henri I. He created a copious black aristocracy, whereby the water-side porter became a duke, and the footman a marquis. He drew up a code of laws, the Code Henri, in imitation of the Code Napoleon. His court was as gorgeous as the court in an opera bouffe. More than that, he built

*See also "Haiti, a Degenerating Island," by Rear Admiral Colby M. Chester, U. S. N., in NATIONAL GEOGRAPHIC MAGAZINE, March, 1908.

Photograph by Mrs. C. R. Miller

STREET-CAR SERVICE IN PORT AU PRINCE, HAITI

The Haitian street railroad makes one think of the old-time elevated train service in New York. The engines are rusty, leaky, and carry smoke-stacks seemingly huge enough for a trans-Atlantic liner.

the palace of Sans Souci, an unbelievable edifice worthy of the 'Arabian Nights.' The ruins of this fantastic edifice still crown certain gracious heights near Cape Haitien. Henri I did one wise thing: he shot himself after a burlesque reign of some thirteen years." He might have added that the fastidious Christophe used a silver bullet; lead was too plebeian for his brain.

THE DUKE OF LIMONADE

Another ruler was Soulouque, an illiterate and superstitious negro, who, under title of "Emperor Faustin I," established a "nobility," among the recipients of his honors being His Grace the Duke of Limonade and His Highness Prince Bobo.

In 1912, when the Knox Mission to Latin America visited Port au Prince, President Laconte was in power. The city then thoroughly fitted Ober's description of it when he wrote: "As to Port au Prince, I can bear testimony respecting its utter filthiness, and agree with a recent resident there that it may bear away the palm of being the most foul-smelling and consequently fever-stricken city in the world. Every one throws his refuse before his door, so that the heaps of manure and every species of rubbish incumber the way. The gutters are open, pools of stagnant water obstruct the street everywhere, and receive constant accession from the inhabitants using them as cesspools and sewers."

But conditions were good then to what they became later. Laconte had set some of his generals to breaking stone for macadamizing the streets, and white residents said that the town was cleaner that year than it had been in their memory.

A REIGN OF TERROR

But Laconte did not rule long. He was assassinated, the palace was burned down, and there was inaugurated a carnival of crime, and an orgy of revolution such as history perhaps never before was called upon to record. Indeed, the four years that began with the assassination of Laconte and ended with the surrender of the last rebels to United States authority were a nightmare of terror.

In one case the body of a dead ruler

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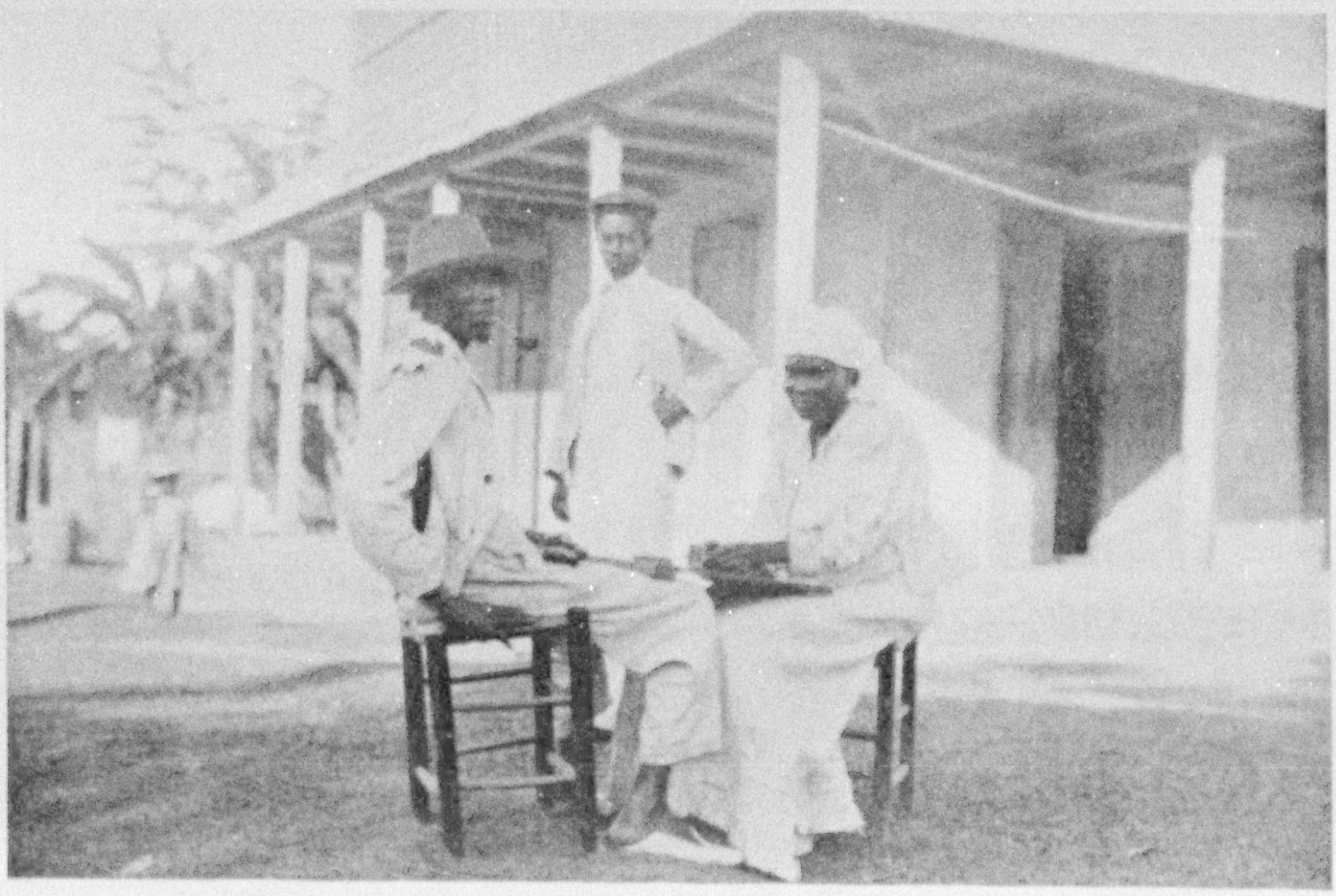
HAITIAN SCHOOL CHILDREN OF THE BETTER CLASS

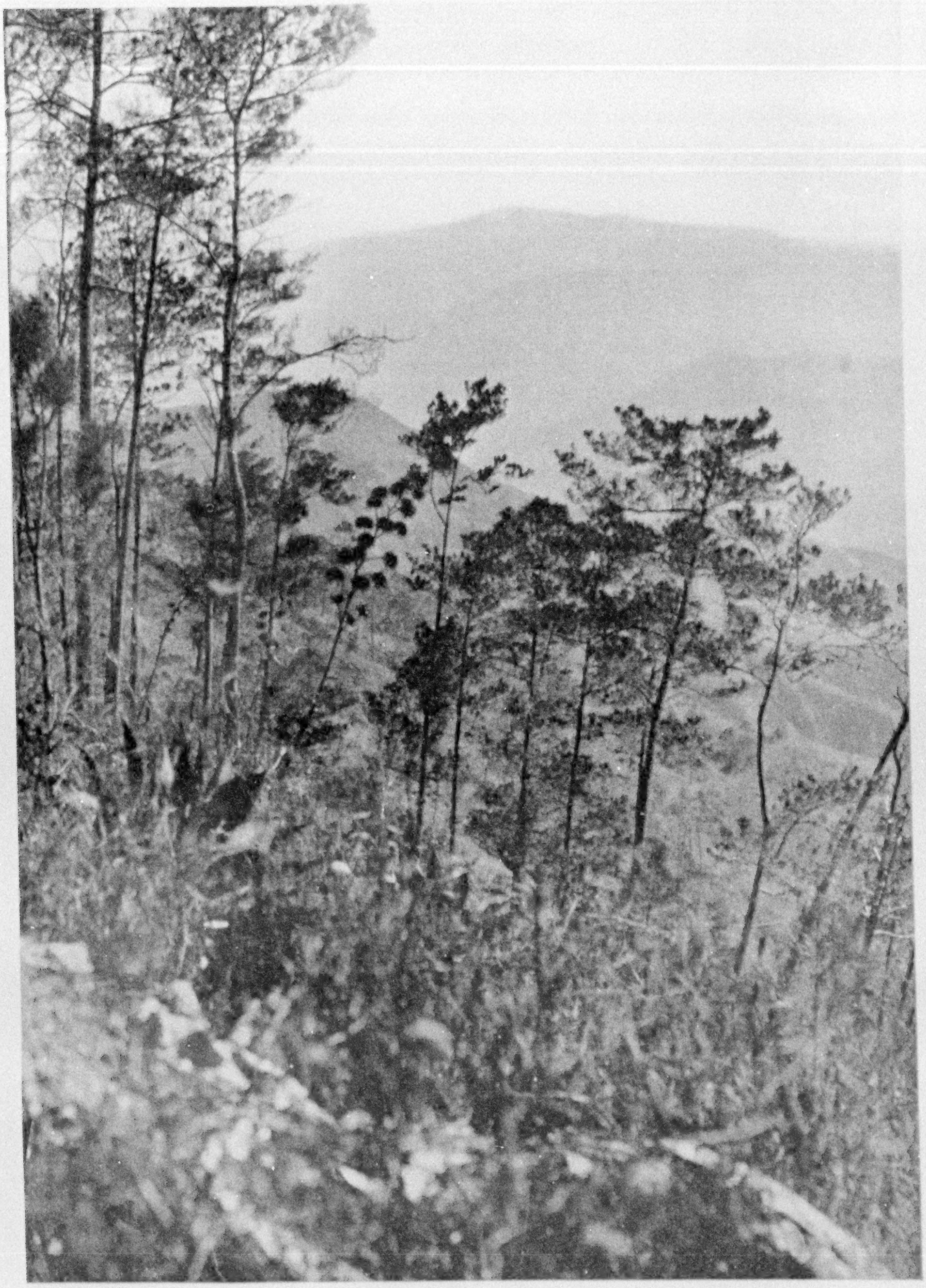
Although Haiti has been the victim of very bad government, at the same time it is probable that more attention has been paid to general education there than in the majority of tropical American countries.



Photographs by Mrs. C. R. Miller

HOME LIFE IN THE COUNTRY: HAITI

The inhabitants of the country districts of Haiti are warm-hearted, polite, good-natured, and usually care less for the morrow than for the pleasures of the moment



SADDLE MOUNTAIN, NEARLY 9,000 FEET HIGH, THE HIGHEST PEAK IN HAITI

The King of England once asked one of his admirals who had visited the West Indies about the appearance of the Island of Haiti. The old sea dog took up a piece of paper, crumpled it in his hand, and laid it on the table. "That, your majesty," he declared, "is a fair illustration of Haiti." No island of equal area in the New World, perhaps, has as many or as high mountains as Haiti.

Photograph by Harriet Chalmers Adams

HOUSE OF A HAITIAN SENATOR

Haiti is not remarkable for its beautiful residential architecture. Foreigners have had few property-owning rights, and the natives have not been given to the erection of costly homes.

XUM

THE FORMER NATIONAL PALACE: PORT AU PRINCE, HAITI

This was the Haitian White House until 1912, when President Laconte was assassinated and the building burned to the ground to cover the crime. It was situated in the Camp de Mars, which Ober well describes as resembling a vacant city lot rather than a public parade ground, being totally devoid of vegetation and encumbered with all sorts of rubbish peculiar to the vacant lot, including the goat and the tomato can.

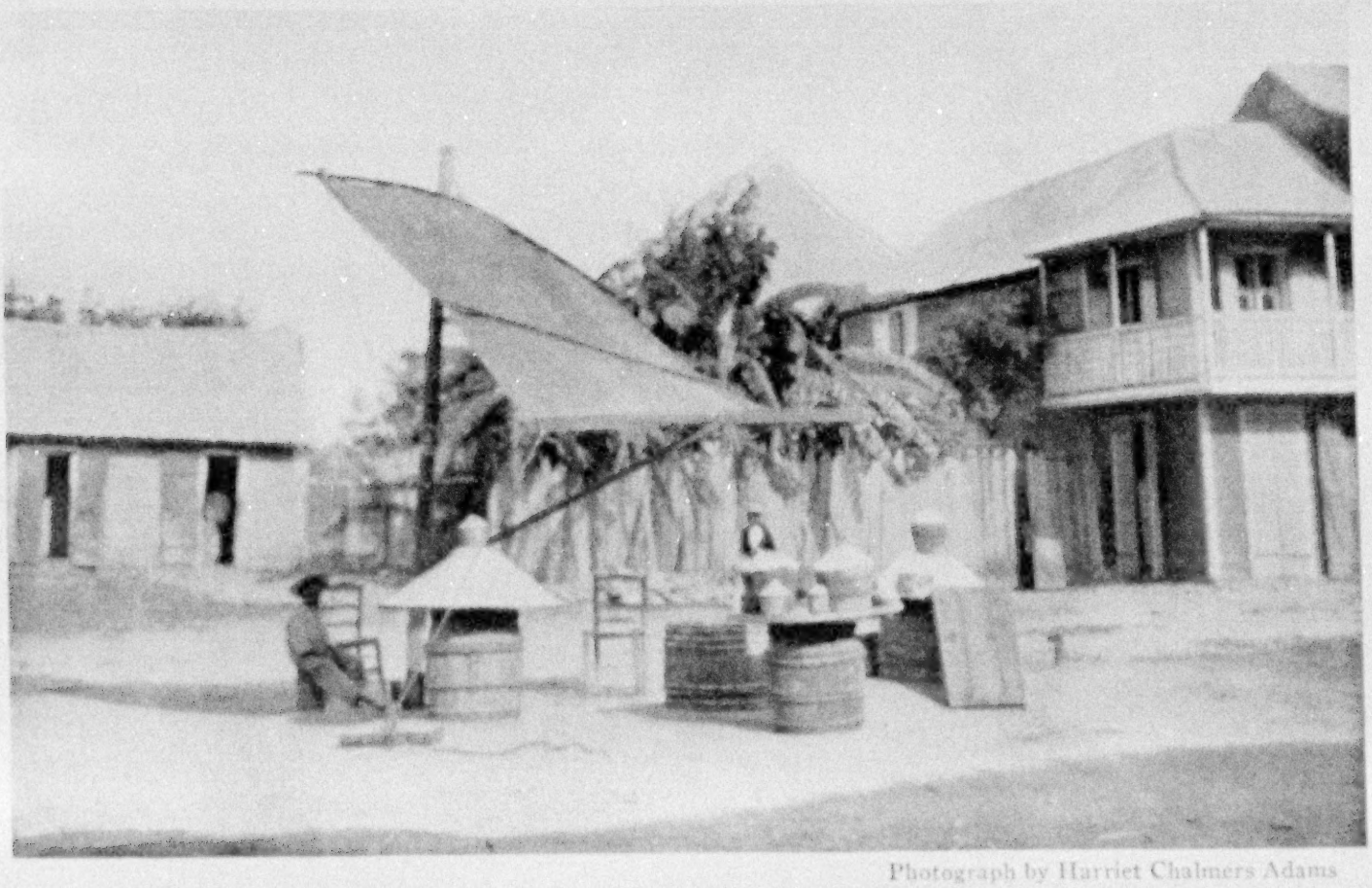
MOUNTAINS OF HAITI

When Nature was distributing her gifts to the islands of the earth Haiti seemed a favorite child, for she bestowed upon it a fertility of soil, an abundance of rainfall, and a wealth of mineral resources that left little to be desired.

Photograph by Mrs. C. R. Miller

A COUNTRY TAILOR AT WORK IN HAITI

There are no "sweat-shops" in Haiti and tailoring is not a very exacting art. The excessively hot climate calls for light-weight clothing, and this is usually imported ready-made from Europe.



Photograph by Harriet Chalmers Adams

THE SALT SELLER: CAPE HAITIEN, HAITI

A TYPICAL MARKET-DAY SCENE: PORT AU PRINCE, HAITI

Nearly all the produce for the feeding of the population of Port au Prince, a city of some 60,000 people, is brought in on the backs of donkeys. The public squares are converted into open-air market-places, and here the buying and selling goes on from early morning until 4 or 5 o'clock in the afternoon, when the caravans begin their toilsome journey homeward.

was lying in state in the cathedral, when a military company was drawn up and commanded to fire into the coffin, which they did with riddling effect. In still another case 110 leading citizens were shot and a reign of terror surpassing even past performances was inaugurated.

This in its turn resulted in the storming of the French legation, where President Guillaume Sam, who had ordered the execution of these people, had taken refuge. He was dragged out; his body was drawn and quartered and dragged through the streets.

Before this latest outbreak, which was in July, 1915, there had been numerous threats of intervention, Germany and France at one time acting jointly in their representations. But this outbreak, which had followed repeated efforts on the part of the Washington Government to find a remedy short of intervention, was the straw that broke the patience of the United States and led it, both for its own safety and the protection of the Haitian people and the foreigners domiciled there, to intervene.

STATUE OF DESSALINES, ERECTED 1904

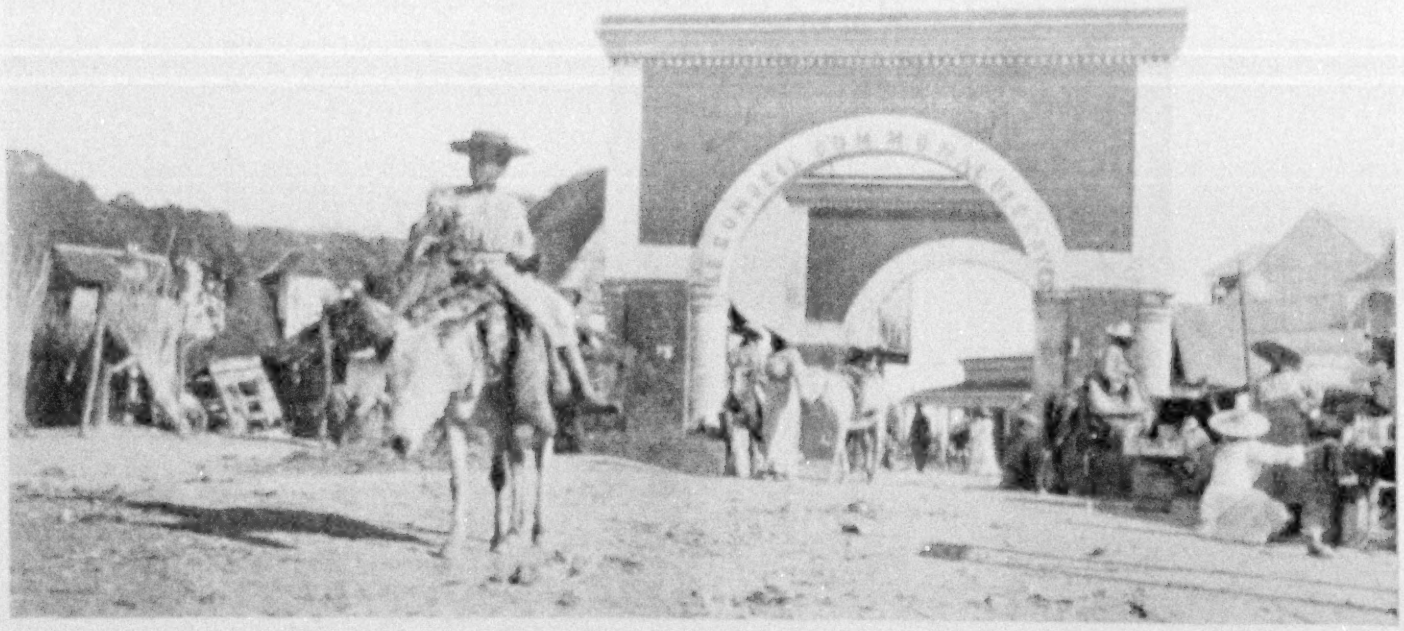
"Then came Dessalines, who, when he had cleared the island of the French, caused himself to be crowned as Emperor of Haiti under the title of Jacques I. His reign, marked as it was by extraordinary debaucheries, was very short, for after he had been two years upon the throne he was happily assassinated."—Sir Frederick Treves.

THE NEW ORDER IN HAITI

A new President, Tudre Dartiguenave, was elected with the approval of the American authorities, and the United States stands behind his government. In return Haiti has entered into a treaty with the United States, which has been ratified by both countries, embodying the principles of the Dominican and Nicaraguan receiverships, together with some new features.

By this treaty the United States practically underwrites a loan of sufficient amount to settle all the legitimate debts of the country and to finance the beginning of its development, opening up its mines, putting its agriculture on a solid basis, and otherwise preparing to make it the region of plenty that nature has equipped it to be.

But the treaty goes further than those with Santo Domingo and Nicaragua. It provides for an American-officered constabulary which shall have control of the peace of the country and the regulation of all matters pertaining to arms and ammunition. Furthermore, it provides for the appointment of a sanitary engineer whose recommendations, as ap-



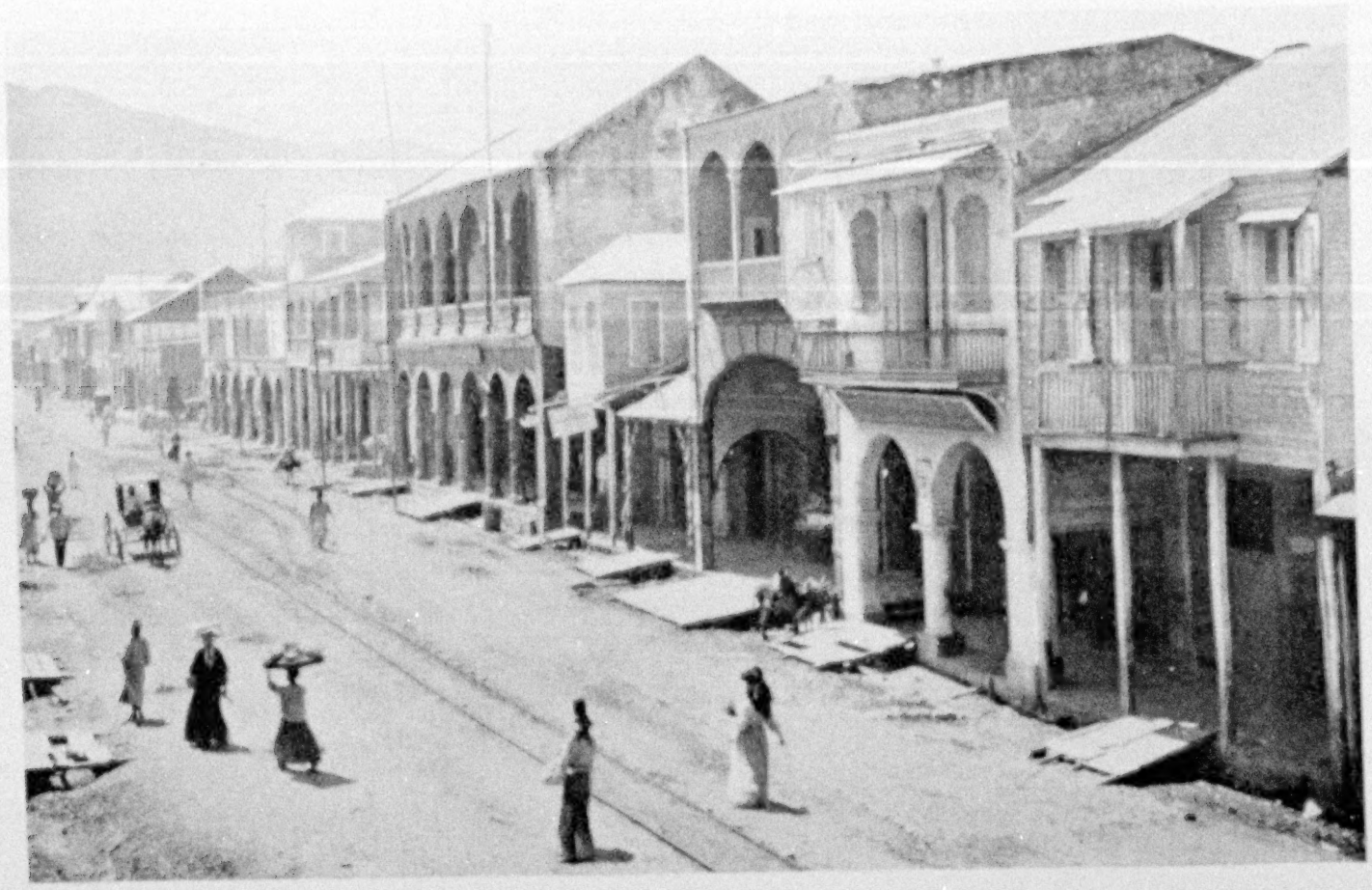
Photograph by Mrs. C. R. Miller

THE TRIUMPHAL ARCHES OF AUX CAYES, HAITI

The woe-begone donkey in the foreground is a picture perhaps more typical of Haiti as it is than any other that can be imagined. One may see processions which include hundreds of these life-weary creatures traveling to the Haitian markets in the morning and returning with exchanged products in the evening, and frequently carrying women seemingly heavier than themselves.

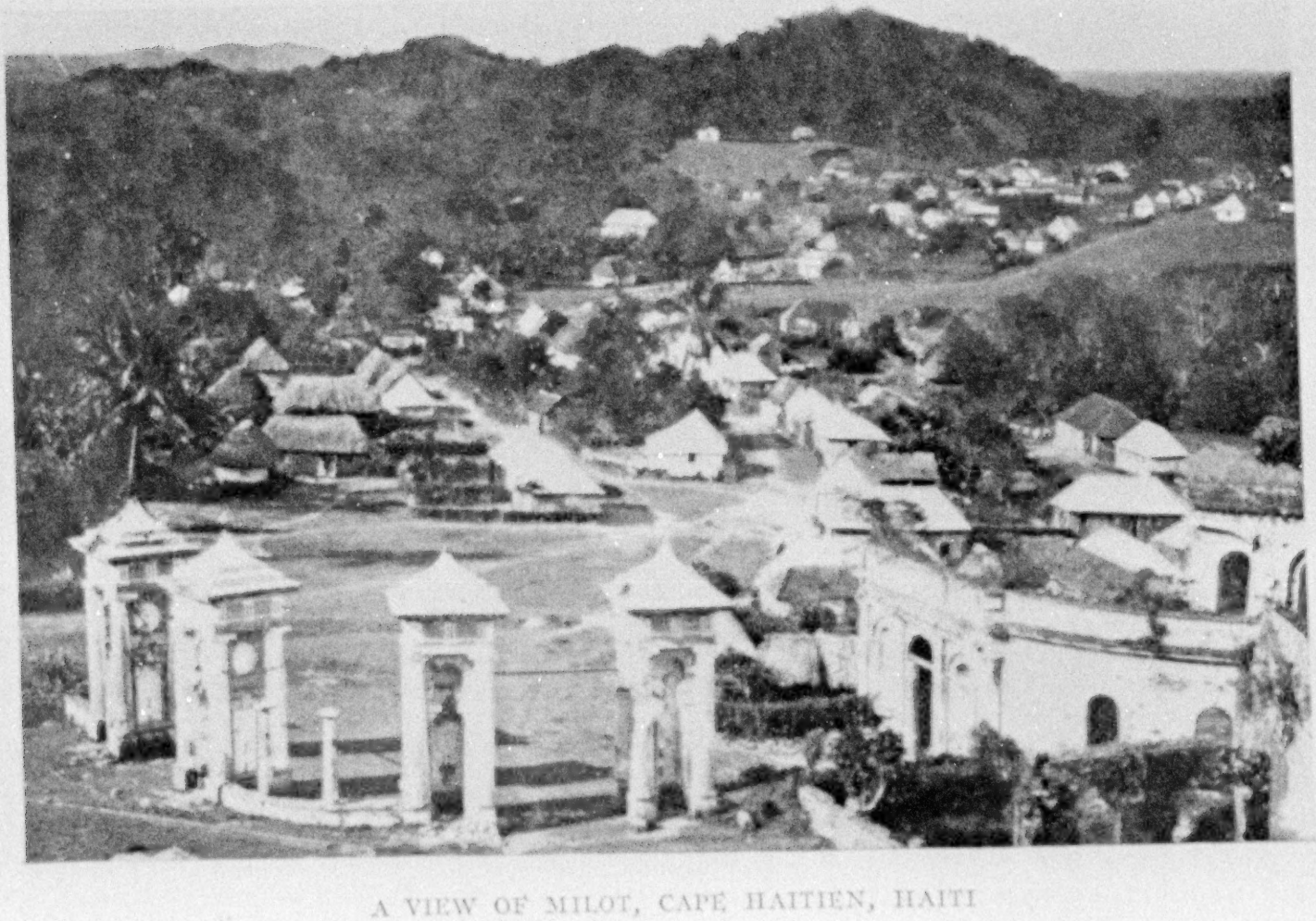
IN THE CEMETERY: PORT AU PRINCE, HAITI

The Haitian negro is true to type in his love of ostentation and display. The funerals are nearly always elaborate, and the cemeteries are most ornate spots.



VIEW OF THE GRAND RUE: PORT AU PRINCE, HAITI

The character of the architecture of the capital city is well shown in this picture. The rickety boardwalks spanning the gutters, even at the post-office, which is the building in the center with the two flagstaffs, show how primitive conditions really are.



A VIEW OF MILOT, CAPE HAITIEN, HAITI

It was off this coast that the flagship of Columbus was wrecked, and here he left most of his men when he returned to Spain for aid. Upon his return to the settlement, which he called "La Navidad," he found the whole party dead, including an Englishman, named Allard, and an Irishman who was entered on the *Santa Maria's* books as William of Galway.

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Photograph by Mrs. C. R. Miller

AN OUTDOOR KITCHEN IN HAITI

The simple life and life in the open are lived in Haiti; but indifference to dirt and a disregard of the most fundamental laws of sanitation result in a high death rate despite all

proved by the United States, are to be carried out in the cleaning up of the cities of the Republic.

This new departure probably will insure peace, quiet, honest administration; and if it does, Haiti will certainly go forward as few small countries ever have. Its mountains are filled with mineral wealth; its valleys are so fertile that the slightest attention can make them produce like an Eden; its forests contain vast stores of precious hardwoods and dyewoods. It is, indeed, a region where nature has lavished its richest gifts, and where a simple population, under a firm yet gentle, beneficent guidance, may realize the blessings of tranquil abundance.

SIZE AND APPEARANCE OF THE ISLAND

Some one has roughly compared the Island of Haiti to a huge turtle swimming eastward on the line between the Atlantic Ocean and the Caribbean Sea. The head and the forward three-fourths of the body are occupied by the Dominican Republic, while the hind legs and the other fourth of the body are under the sovereignty of the Republic of Haiti.

It contains approximately 28,000 square miles of territory, being not quite as large as the State of South Carolina. The part occupied by Santo Domingo is a little smaller than the combined areas of Vermont and New Hampshire, while that occupied by the Republic of Haiti is not quite so large as the State of Maryland.

Although the Republic of Santo Domingo has nearly twice as much territory as that of Haiti, its population is less than one-third as large as that of the black republic. This has resulted in bitter feeling between the two nations—a feeling that is a century old. The Haitians have repeatedly tried to get a slice of Dominican territory, now by open war, and now by rival boundary claims; but to date they have not succeeded, and it is to be presumed that the influence of the United States during its protectorate will be against any reopening of this issue.

The island of Haiti is one of the four of the Greater Antilles and the second in area and population. It is the only island in the West Indies besides Cuba that is independent. It got its name from a Carib word meaning "mountainous" or "high land." Columbus, who established the first settlement in the New World on its northern coast, renamed the island, calling it Hispaniola.

It is about 400 miles long, varying in width from 24 to 165 miles. It is covered with densely wooded mountains, with a large number of beautiful and fertile valleys between them. Loma Tina, which towers over 10,000 feet above the sea, is not only the roof of the island, but of all the West Indies. The average height of the main mountain range is about 7,000 feet. There are many rivers, but they are usually short and swift, the alluvial plain being very narrow.

A LITTLE JOURNEY IN HONDURAS

By F. J. Youngblood

HAVING occasion a short time ago to travel through Honduras, I endeavored, before leaving Los Angeles, to gain some idea of how the trip should be undertaken, but found I could obtain very little information about the country and practically no details in regard to climate, trails, necessary equipment, etc. What few bits of stray information I did get proved, as a rule, entirely incorrect, and it is possible that what I learned by experience may be of some slight assistance in saving another traveler both trouble and money at some future time. And it will be found that the lack of information in traveling in Central America is a greater handicap than almost anywhere else.

There are two chief arteries of travel in Honduras—one from Amapala, on the south coast, to Tegucigalpa, the capital, and the other from Puerto Cortés, on the north coast, to the same place.

Starting from the United States, it will

VIEW OF COMAYAGUELA, WHICH IS PRACTICALLY A PART OF TEGUCIGALPA, HONDURAS

This picture was taken after the rebuilding of the bridge shown in the illustration on page 182

Photographs by F. J. Youngblood

AN EXAMPLE OF NATIVE HOUSES OF THE BETTER SORT

It is in such shelters as this that the traveler must spend most of his nights on the trail from the ports of Amapala and Puerto Cortés to the capital

cost practically the same amount to reach Tegucigalpa by either port of entry; but the time taken and the inconveniences met with on the two roads are vastly different. To reach Amapala, a steamer may be taken at San Francisco. The voyage, as a rule, occupies 22 days, not because this length of time is necessary to cover the distance, but because the boats are slow, carry cargo, and stop for a few hours, or it may be for a few days, at ports in Mexico, Guatemala, and Salvador. For the traveler who is in no hurry, this voyage is extremely interesting. Our ship touched at Mazatlan, Acapulco, and Salina Cruz, in Mexico; Ocos, Champerico, and San José, in Guatemala; Acajutla, La Libertad, and La Union, in Salvador. We anchored for three days off San José, and many of the passengers took advantage of the opportunity to visit Guatemala City, almost a day's journey inland.

A PICTURE OF AMAPALA

On arriving at Amapala, I received courteous treatment everywhere; in many cases the natives of the country must have gone to considerable trouble on my account, and on one occasion the foreman of a hacienda where I had been stopping swam his horse across a river seven times to assist a friend and myself with our baggage; yet we were "Gringos," whom he would probably never see again. In Amapala arrangements must be made to continue the journey to Tegucigalpa by mules. There are only a few miles of railroad in Honduras, on the north coast, and as transportation is primitive it is best to understand that in crossing or going through Honduras conveniences must be forgotten: there are no particular hardships to be borne or dangers to be faced, but the creature comforts of home are missing.

From Amapala a launch is taken to San Lorenzo, where the necessary mules should be arranged for in advance, since they have to come from Perspire, a town some miles away. If a light pack is all the traveler has, it can be taken with him on a mule; otherwise it is better and cheaper to send heavy baggage forward by ox-cart, and, naturally, this will take considerably longer. Tegucigalpa should be reached in three days, there being a fairly good road all the way. As it is a constructed road and not a trail, 25 days from San Francisco may be considered the length of time required by this route.

A PUZZLING FINANCIAL SYSTEM

The monetary system of the country should be studied immediately upon landing. The standard is silver and the rate of exchange is two and one-half to one; in other words, the Honduran dollar (peso or sol) is worth 40 cents gold. Funds should be taken from the States in gold coin only; this will pass everywhere and is eagerly sought for by the merchants. The paper money of the country is as good as the silver, but away from the large towns and cities it is hard to get small change for a bill; hence it is advisable always to have a good supply of silver to pay the charges met with here and there on the road.

A mozo or servant should also be hired with the mules. He is an absolute necessity to the stranger and is usually sent to you by the owner from whom you have hired the animals. The mozo practically arranges your day's journey; he packs and saddles your mules, shows the way, does any odd thing you wish while on the road, and may be depended on always to get you a house for the night, for, except in Amapala, Tegucigalpa, Puerto Cortés, or the largest places, so-called hotels cannot be found.

HOSPITALITY AND CURIOSITY

As a rule, the night will be spent in a native house, sometimes little more than a hut, built of mud, thatched or roofed with tiles. One is apparently always welcome to the best the house affords; but a hammock as part of the traveler's outfit is a necessity, for the beds of stretched bull-hide or canvas are usually fully occupied, if not by those at whose home you are a guest, then by other residents greatly to be feared.

Everybody sleeps in one room—men, women, and children together. Your hosts are curious, but politely so, watching you undress and get into your hammock, with a calm stare that must not be

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Photograph by F. J. Youngblood

THE SEVENTH AGE OF WOMAN IN HONDURAS

On the visage of this centenarian the pencils of Poverty and Privation, as well as that of Time, have drawn countless indelible lines of suffering and sorrow. The crutches which guide her tottering steps are crude forked sticks which are a torture as well as an aid. At her side are the sturdy children of the third or fourth generation. And here, as in every other corner of the globe, the doll is the girl's dearest treasure.

Photograph by F. J. Younghlood

IN THE MARKET-PLACE: TEGUCIGALPA, HONDURAS

Burdened with one of the heaviest per capita debts in the world, Honduran people still manage to eke out a living. If the United States owed as much in proportion to its population, we would have a national debt of twenty-two billion dollars.

considered impertinent, for a white man is not an every-day visitor. I, myself, rarely undressed completely. Sometimes I would only take off hat, coat, and boots; sometimes only my hat, for sleeping in one's clothes becomes second nature after awhile, and bathing and changes of linen can be better indulged in along the roadside.

THE CITY OF TEGUCIGALPA

Arrived in Tegucigalpa, one discovers that it is not necessary to carry a large outfit from the States. The city, with the adjacent town of Comayaguela, boasts a population of from 12,000 to 15,000 and has many good stores where almost all the ordinary things required on such a trip can be purchased.

Were I to cover the ground again, my pack would be a very light one, probably weighing less than 100 pounds, and would contain several suits of khaki, some light flannel underclothes and outing shirts, two or three pairs of high boots, rubber boots, a rubber riding coat, and a few personal necessities.

If a long trip into the interior from Tegucigalpa is intended, a supply of canned food should be obtained in the city; but along a regular trail tortillas, beans, rice, some sort of meat, coffee, and a few other things can usually be obtained at small cost. The cooking is fairly good, though monotonous, and the extras carried in the way of sardines, compressed soups, bread, or biscuits in tins, etc., is merely according to individual taste, although bacon, tea, flour, and the other foods will always come in handy, as the natives are not hearty eaters and their supply is sometimes limited. Everything mentioned can be purchased in the city or from the mining company store, which has an office there.

A SHORTER ROUTE

But continuing the comparison of the two ways of getting into the country, we have already noted that approximately 25 days are required via Amapala. Puerto Cortés may be reached by any one of several fruit-line steamers running from New Orleans or Mobile. The mail boats from New Orleans take between five and

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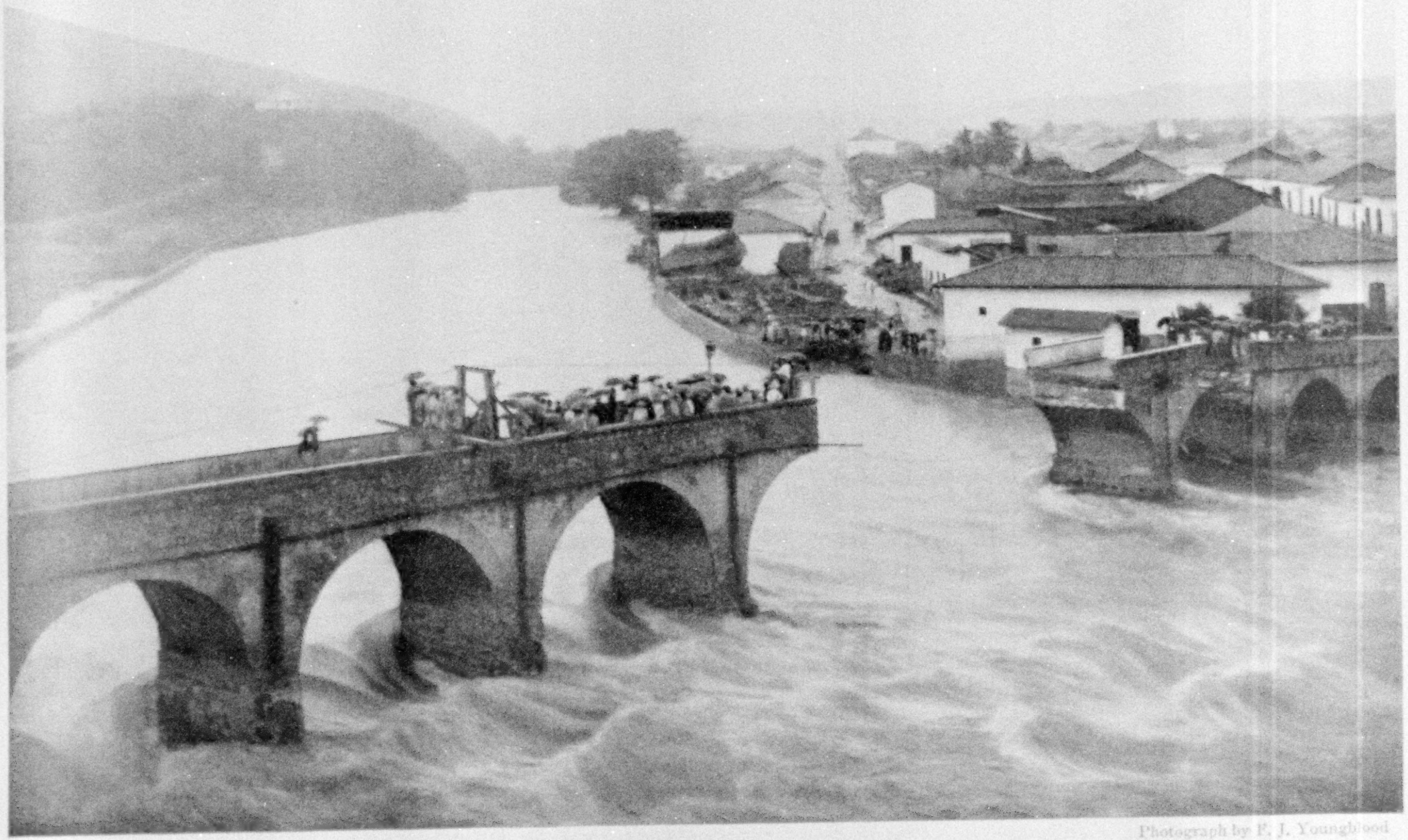

Photograph by P. J. Youngblood

A VIEW OF TEGUCIGALPA, HONDURAS

This picture shows the seething waters of a mountain torrent in freshet season just after a section of the principal highway bridge of the capital city has been swept away. Such a mishap is a calamity in Tegucigalpa, for, unlike any other capital city in North or South America, its only means of communication with the seaboard is over wagon roads (see page 178).

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Photograph by F. J. Youngblood

A TYPICAL NATIVE FAMILY GROUP OF THE INTERIOR

There is no race suicide in Honduras, but infant mortality is pitiably high. The people are hospitable, and are ready to share bed and board—the bed often the bare floor, and board little more than tortillas, frijoles, and coffee—with the wayfaring traveler.

six days to make the trip, as they call at various ports on the coast; the Mobile boats make the run in three and four days.

From Puerto Cortés a railroad runs to La Pimienta, which means another day, although the distance is less than 60 miles. There begins a five or six days' ride on mules over fairly hard trails, which are very bad in spots.

Honduras is a country of hills and valleys; of rain and sunshine; of large and small rivers. A half dozen rivers may be crossed in one day, and, while they are usually narrow and shallow, a few hours' rain will turn them into roaring torrents, absolutely impassable. I have been held up for five days by a stream that when I first crossed it was less than three feet in depth. When I wanted to cross the second time, a few weeks later, it had been raining, and even the natives remained on whichever side they chanced to be until it went down again. But, given favorable conditions, the Puerto Cortés journey may be said to be only one-half as long in time taken as the route via Amapala.

GENERAL CLIMATIC CONDITIONS

Honduras is not an unhealthful country, but a small medicine case of standard remedies should be taken. Quinine is the most useful of all. Along the rivers and on some parts of the coast fevers are to be expected at times, but are not so frequent in the interior at altitudes of 1,000 feet or more.

On the south slope of the country the rainy season extends from about the last of June to the first of November; on the north slope it begins earlier and lasts longer.

In time the country will be far better known than it at present seems to be, for it undoubtedly holds great mineral wealth among its natural resources.

There are no flour mills, yet three crops of wheat can be raised a year; there are no sugar refineries, yet cane grows luxuriantly; there is no cotton industry, yet cotton will bloom all the year round; bananas are raised on the north coast, yet they will grow as well in the interior, but there is no transportation for them or for anything else.

Honduras is said to be the most backward of all the Central American republics, and she will remain so until railroads cross the country and the government becomes stable. Then there will be great opportunities here for many, and Americans and American capital will always be welcome.

The country is just a little larger than the State of Pennsylvania, yet it has a population of only a little more than half a million. It has the largest per capita debt of any country on the face of the globe except New Zealand—at least it had before the present European war upset all statistical conditions. It owes $220 per capita. Most of this debt was created by loan-shark methods, however, for Honduras would agree to pay $10 to get one—or some such ridiculous proportion.

The name of the country is said to be derived from a Spanish term meaning "depth," the early explorers having found difficulty in striking water shallow enough for anchorage. They were so delighted when they reached the Nicaraguan shore near by that they called the headland "Cape Gracias a Dios" (Cape Thanks to God), a name it still holds.

Honduras, Salvador, and Nicaragua all border on Fonseca Bay, one of the finest harbors on the west coast of either America. Guatemala and Salvador have also built a link of railroad between Zacapa and La Union, which makes another transcontinental railway. It is the conflict of the interests of these States that produced the protests of Central America against the treaty between Nicaragua and the United States, involving canal and naval rights in that bay.

It may be added that a knowledge of Spanish, attending strictly to one's own business, and a realization that the natives are far from being savages will help a person get through the country better than a revolver, although the latter may be carried for a case of extreme emergency. However, the ability to speak a little of the language is the most important thing of all.

INDEX FOR JANUARY–JUNE, 1916, VOLUME READY.

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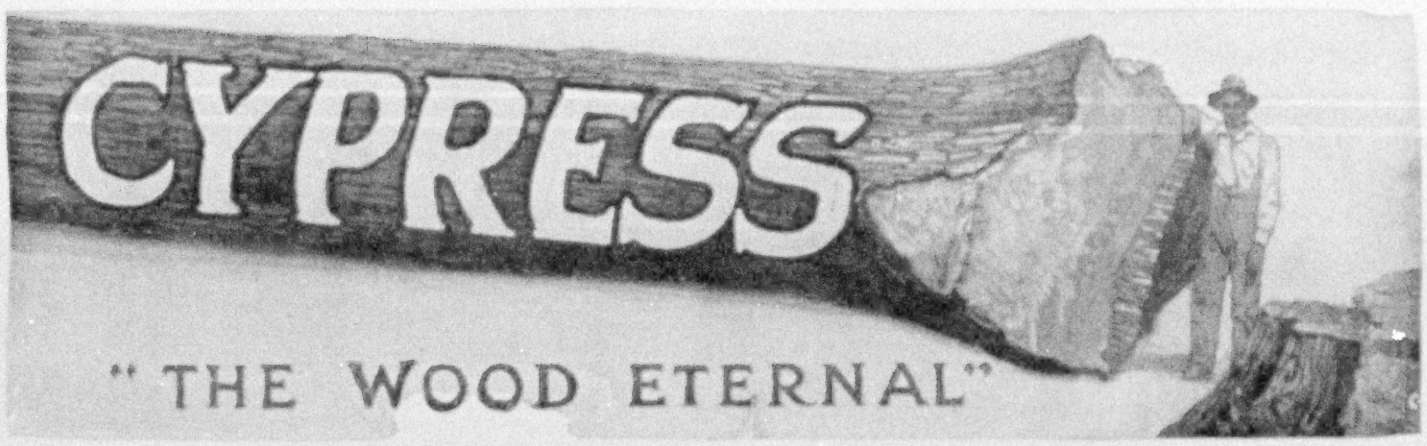

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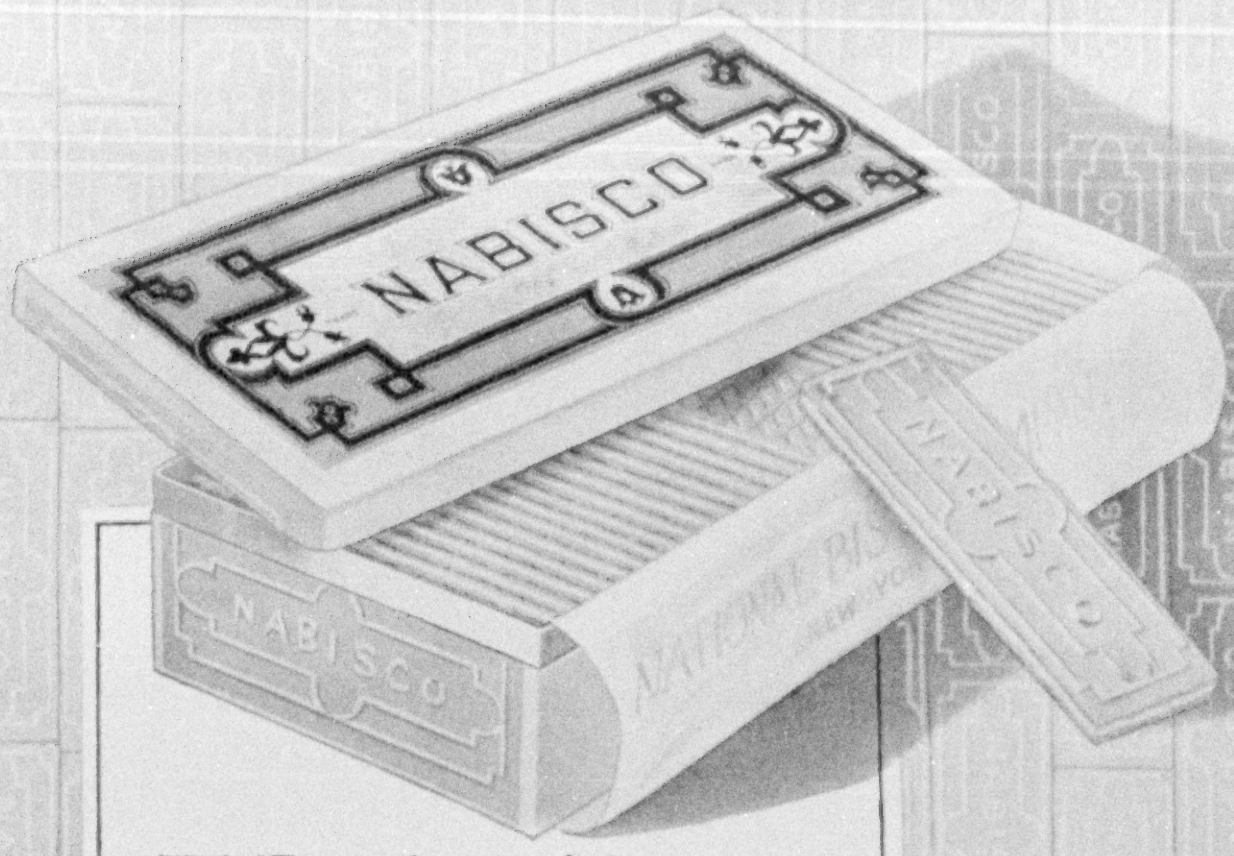

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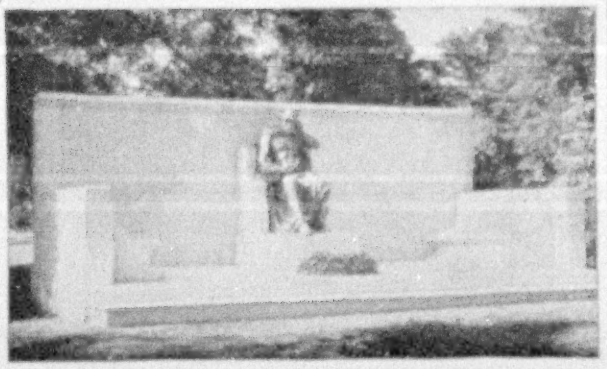

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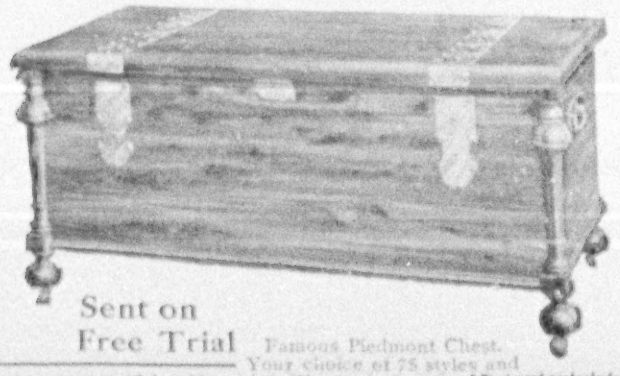

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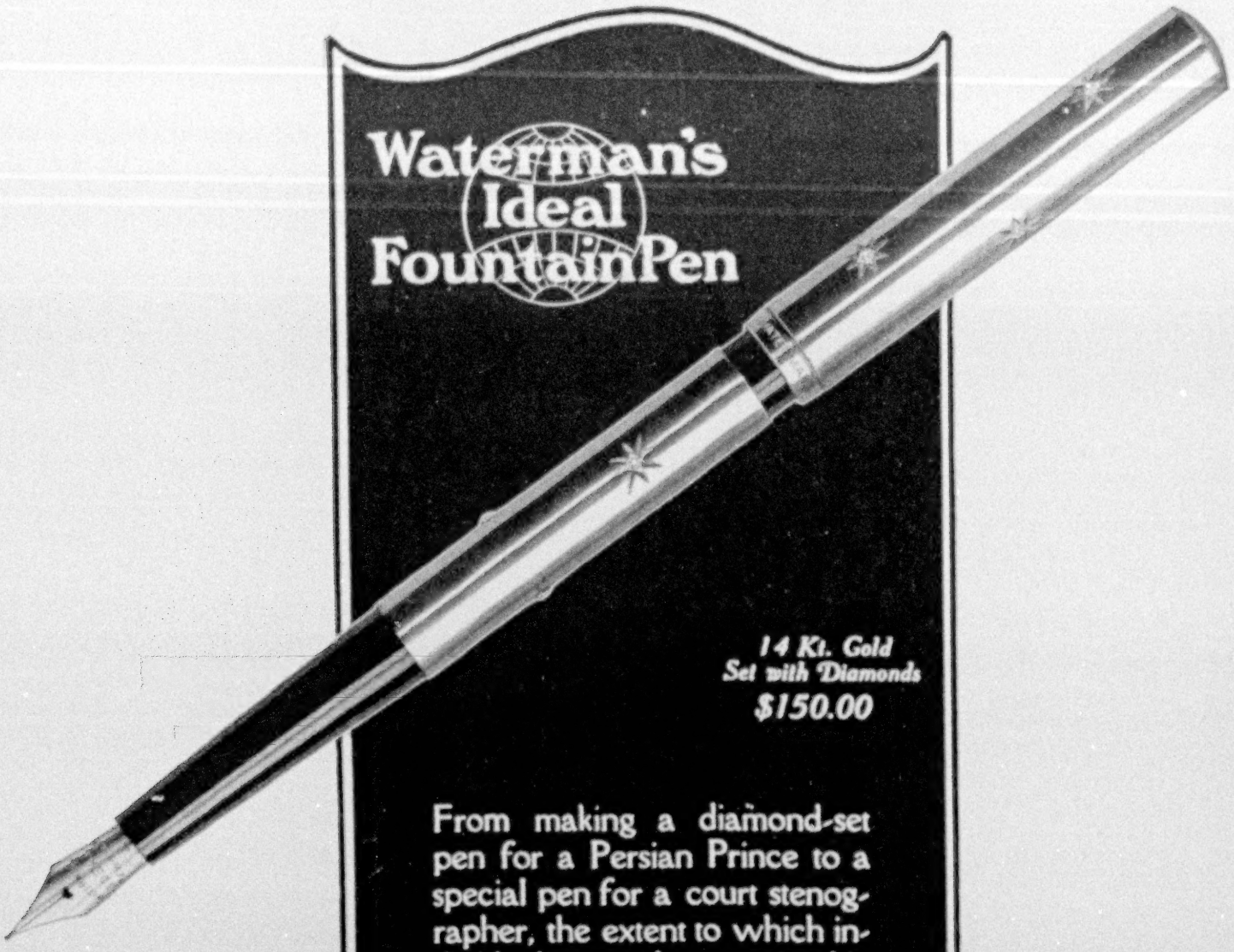

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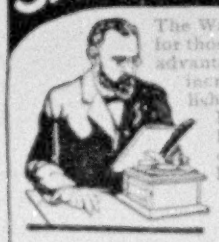

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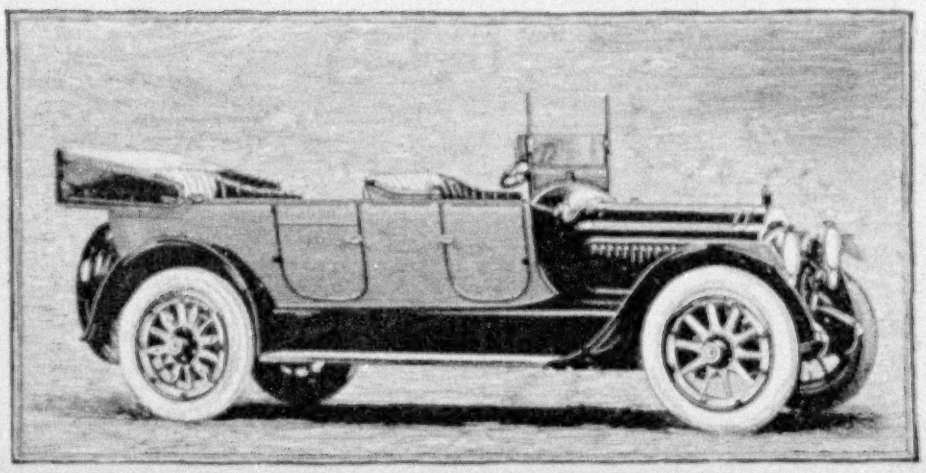

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